DOP 4 - 020 - 22/0438 - 2022/01

(033) Injection system EJOT Multifix PSF+ / Sormat ITH-Pe, EJOT Multifix PSF+ Tropical/ Sormat ITH-Te, EJOT Multifix PSF+ Winter

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Leistungserklärung

Nr.: **4 - 020 - 22/0438 - 2022/01** **DE**

1.) Eindeutiger Kenncode des Produkttyps:

(033) Injektionssystem EJOT Multifix PSF+ / Sormat ITH-Pe, EJOT Multifix PSF+ Tropical/ Sormat ITH-Te, EJOT Multifix PSF+ Winter

2.) Verwendungszweck:

Injektionssystem zur Verankerung im Mauerwerk

3.) Hersteller:

EJOT SE & Co. KG, MU Construction, In der Stockwiese 35, 57334 Bad Laasphe - Germany

4.) System zur Bewertung und Überprüfung der Leistungsbeständigkeit:

System 1

5.)

Europäisches Bewertungsdokument	**EAD 330076-01-0604**
Europäisch Technische Bewertung:	**ETA-22/0438**
Technische Bewertungsstelle:	**TZUS - Technical and Test Institute for Construction**
Notifizierte Stelle:	**2873 - IFSW - Technische Universität Darmstadt**

6.) Erklärte Leitung(en):

a) Mechanische Festigkeit und Standsicherheit (BWR 1) und Sicherheit bei der Nutzung (BWR 4)

Wesentliche Merkmale	Leistungswerte
Charakteristische Werte für Widerstand	Anhang C 6 bis C 40
Verschiebungen	Anhang C 5 bis C 39
Dauerhaftigkeit	Siehe Anhang B1

Leistungserklärung

Nr.: **4 - 020 - 22/0438 - 2022/01** **DE**

EJOT®

b) Brandschutz (BWR 2)

Wesentliche Merkmale	Leistungswerte
Brandverhalten	Die Dübel erfüllen die Anforderungen der Klasse A1

c) Hygiene, Gesundheit und Umweltschutz (BWR 3)

Wesentliche Merkmale	Leistungswerte

d) Schallschutz (BWR 5)

Wesentliche Merkmale	Leistungswerte

e) Energieeinsparung und Wärmeschutz (BWR 6)

Wesentliche Merkmale	Leistungswerte

f) Nachhaltige Nutzung der natürlichen Ressourcen (BWR 7)

Wesentliche Merkmale	Leistungswerte

Die Leistung des vorstehenden Produkts entspricht der erklärten Leitung/den erklärten Leistungen. Für die Erstellung der Leistungserklärung im Einklang mit der Verordnung (EU) Nr. 305/2011 ist allein der oben genannte Hersteller verantwortlich.

Unterzeichnet für den Hersteller und im Namen des Herstellers von:

Dr. Jens Weber
(Name)

Bad Laasphe, 16.09.2022
(Ort und Datum der Ausstellung)

(Unterschrift)

Declaration of Performance

No **4 - 020 - 22/0438 - 2022/01** **EN**

1.) Unique identification code of the product-type:

(033) Injection system EJOT Multifix PSF+ / Sormat ITH-Pe, EJOT Multifix PSF+ Tropical/ Sormat ITH-Te, EJOT Multifix PSF+ Winter

2.) Intended use:

Injection anchors for use in masonry

3.) Manufacturer:

EJOT SE & Co. KG, MU Construction, In der Stockwiese 35, 57334 Bad Laasphe - Germany

4.) System of AVCP:

System 1

5.)

European Assesment Document:	**EAD 330076-01-0604**
European Technical Assessment:	**ETA-22/0438**
Technical assessment body:	**TZUS - Technical and Test Institute for Construction**
Notified body:	**2873 - IFSW - Technische Universität Darmstadt**

6.) Declared Performance:

a) Mechanical resistance and stability (BWR 1) and safety and accessibility (BWR 4)

Essential characteristic	Performance
Characteristic values for resistance	Annex C 6 to C 40
Displacements	Annex C 5 to C 39
Durability	See Annex B1

Declaration of Performance

No **4 - 020 - 22/0438 - 2022/01** **EN**

EJOT®

b) Safety in case of fire (BWR 2)

Essential characteristic	Performance
Reaction to fire	Anchorages satisfy requirements for Class A1

c) Hygiene, health and the environment (BWR 3)

Essential characteristic	Performance

d) Protection against noise (BWR 5)

Essential characteristic	Performance

e) Energy economy and heat retention (BWR 6)

Essential characteristic	Performance

f) Sustainable use of natural resources (BWR 7)

Essential characteristic	Performance

The performance of the product identified above is in conformity with the set of declared performance/s. This declaration of performance is issued, in accordance with Regulation (EU) No 305/2011, under the sole responsibility of the manufacturer identified above.

Signed for and on behalf of the manufacturer by:

Dr. Jens Weber
(Name)

Bad Laasphe, 16.09.2022
(Place and date of issue)

(Signature)

ДЕКЛАРАЦИЯ ЗА ЕКСПЛОАТАЦИОННИ ПОКАЗАТЕЛИ

№ **4 - 020 - 22/0438 - 2022/01** **BG**

1.) Уникален идентификационен код на типа продукт:

(033) Injection system EJOT Multifix PSF+ / Sormat ITH-Pe, EJOT Multifix PSF+ Tropical/ Sormat ITH-Te, EJOT Multifix PSF+ Winter

2.) Предвидена употреба/употреби:

Инжекционни анкери за използване в зидария

3.) Производител:

„ЕЙОТ Баубефестигунген“ - EJOT SE & Co. KG, MU Construction, In der Stockwiese 35, 57334 Bad Laasph

4.) Система/системи за оценяване и проверка на постоянството на експлоатационните показатели:

Сиситема 1

5.)

Европейски документ за оценяване:	**EAD 330076-01-0604**
Европейска техническа оценка:	**ETA-22/0438**
Орган за техническа оценка:	**TZUS - Technical and Test Institute for Construction**
Нотифициран орган/органи:	**2873 - IFSW - Technische Universität Darmstadt**

6.) Декларирани експлоатационни показатели:

a) Механична устойчивост и стабилност (BWR 1) и безопасност и достъпност (BWR 4)

Основни характеристики	Показатели
Характерни стойности за съпротивление	Приложение C 6 до C 40
Премествания	Приложение C 5 до C 39
Дълготрайност	Вж. приложение B1

ДЕКЛАРАЦИЯ ЗА ЕКСПЛОАТАЦИОННИ ПОКАЗАТЕЛИ

№ **4 - 020 - 22/0438 - 2022/01** **BG**

EJOT®

b) Безопасност в случай на пожар (BWR 2)

Основни характеристики	Показатели
Реакция при пожар	Закрепванията отговарят на изискванията за клас A1

c) Хигиена, здраве и околна среда (BWR 3)

Основни характеристики	Показатели

d) Защита от шум (BWR 5)

Основни характеристики	Показатели

e) Икономия на енергия и запазване на топлината (BWR 6)

Основни характеристики	Показатели

f) Устойчиво използване на природните ресурси (BWR 7)

Основни характеристики	Показатели

Експлоатационните показатели на продукта, посочени по-горе, са в съответствие с декларираните експлоатационни показатели. Настоящата декларация за експлоатационни показатели се издава в съответствие с Регламент (ЕС) № 305/2011, като отговорността за нея се носи изцяло от посочения по-горе производител.

Подписано за и от името на производителя от:

Dr. Jens Weber
(Име)

Bad Laasphe, 16.09.2022
(Място и Дата)

(Подпис)

PROHLÁŠENÍ O VLASTNOSTECH

č. **4 - 020 - 22/0438 - 2022/01** **CZ**

1.) Jedinečný identifikační kód typu výrobku:

(033) Injection system EJOT Multifix PSF+ / Sormat ITH-Pe, EJOT Multifix PSF+ Tropical/ Sormat ITH-Te, EJOT Multifix PSF+ Winter

2.) Zamýšlené/zamýšlená použití:

Injektážní kotvy pro použití ve zdivu

3.) Výrobce:

EJOT SE & Co. KG, MU Construction, In der Stockwiese 35, 57334 Bad Laasphe - Germany

4.) Systém/systémy POSV:

Systém 1

5.)

Evropský dokument pro posuzování:	**EAD 330076-01-0604**
Evropské technické posouzení:	**ETA-22/0438**
Subjekt pro technické posuzování:	**TZUS - Technical and Test Institute for Construction**
Oznámený subjekt/oznámené subjekty:	**2873 - IFSW - Technische Universität Darmstadt**

6.) Deklarovaná vlastnost/Deklarované vlastnosti:

a) Mechanická odolnost a stabilita (BWR 1) a bezpečnost a dostupnost (BWR 4)

základní charakteristiky	vlastnosti výrobku
Charakteristické hodnoty pro odpor	Příloha C 6 až C 40
Posunutí	Příloha C 5 až C 39
Odolnost	Viz příloha B1

PROHLÁŠENÍ O VLASTNOSTECH

č. **4 - 020 - 22/0438 - 2022/01** **CZ**

EJOT®

b) Bezpečnost při požáru (BWR 2)

základní charakteristiky	vlastnosti výrobku
Reakce na oheň	Kotvení splňuje požadavky pro třídu A1

c) Hygiena, zdraví a životní prostředí (BWR 3)

základní charakteristiky	vlastnosti výrobku

d) Ochrana proti hluku (BWR 5)

základní charakteristiky	vlastnosti výrobku

e) Úspora energie a zadržování tepla (BWR 6)

základní charakteristiky	vlastnosti výrobku

f) Udržitelné využívání přírodních zdrojů (BWR 7)

základní charakteristiky	vlastnosti výrobku

Vlastnosti výše uvedeného výrobku jsou ve shodě se souborem deklarovaných vlastností. Toto prohlášení o vlastnostech se v souladu s nařízením (EU) č. 305/2011 vydává na výhradní odpovědnost výrobce uvedeného výše.

Podepsáno za výrobce a jeho jménem:

Dr. Jens Weber
(jméno)

Bad Laasphe, 16.09.2022
(místo a datum vydání)

(podpis)

YDEEVNEDEKLARATION

Nr.: **4 - 020 - 22/0438 - 2022/01** **DK**

1.) Varetypens unikke identifikationskode:

(033) Injection system EJOT Multifix PSF+ / Sormat ITH-Pe, EJOT Multifix PSF+ Tropical/ Sormat ITH-Te, EJOT Multifix PSF+ Winter

2.) Tilsigtet anvendelse:

Injektionsankre til brug i murværk

3.) Fabrikant:

EJOT SE & Co. KG, MU Construction, In der Stockwiese 35, 57334 Bad Laasphe - Germany

4.) System eller systemer til vurdering og kontrol af konstansen af ydeevnen:

System 1

5.)

Europæisk vurderingsdokument:	**EAD 330076-01-0604**
Europæisk teknisk vurdering:	**ETA-22/0438**
Teknisk vurderingsorgan:	**TZUS - Technical and Test Institute for Construction**
Notificeret organ/notificerede organer:	**2873 - IFSW - Technische Universität Darmstadt**

6.) Deklareret ydeevne/deklarerede ydeevner:

a) Mekanisk modstand og stabilitet (BWR 1) og sikkerhed og tilgængelighed (BWR 4)

Væsentlige egenskaber	Ydelse
Karakteristiske værdier for modstand	Bilag C 6 til C 40
Forskydninger	Bilag C 5 til C 39
Holdbarhed	Se bilag B1

YDEEVNEDEKLARATION

Nr.: **4 - 020 - 22/0438 - 2022/01** **DK**

EJOT®

b) Sikkerhed ved brand (BWR 2)

Væsentlige egenskaber	Ydelse
Reaktioner på brand	Forankringer opfylder kravene til klasse A1

c) Hygiejne, sundhed og miljø (BWR 3)

Væsentlige egenskaber	Ydelse

d) Beskyttelse mod støj (BWR 5)

Væsentlige egenskaber	Ydelse

e) Energibesparelser og varmebinding (BWR 6)

Væsentlige egenskaber	Ydelse

f) Bæredygtig udnyttelse af naturressourcer (BWR 7)

Væsentlige egenskaber	Ydelse

Ydeevnen for den vare, der er anført ovenfor, er i overensstemmelse med den deklarerede ydeevne. Denne ydeevnedeklaration er udarbejdet i overensstemmelse med forordning (EU) nr. 305/2011 på eneansvar af den fabrikant, der er anført ovenfor.

Underskrevet for fabrikanten og på dennes vegne af:

Dr. Jens Weber
(navn)

Bad Laasphe, 16.09.2022
(sted og dato for udstedelse)

(underskrift)

TOIMIVUSDEKLARATSIOON

nr **4 - 020 - 22/0438 - 2022/01** **EE**

1.) Tootetüübi kordumatu identifitseerimiskood:

(033) Injection system EJOT Multifix PSF+ / Sormat ITH-Pe, EJOT Multifix PSF+ Tropical/ Sormat ITH-Te, EJOT Multifix PSF+ Winter

2.) Kavandatud kasutusala(d):

Süstiankrud müüritises kasutamiseks

3.) Tootja:

EJOT SE & Co. KG, MU Construction, In der Stockwiese 35, 57334 Bad Laasphe - Germany

4.) Toimivuse püsivuse hindamise ja kontrolli süsteem:

Süsteem 1

5.)

Euroopa hindamisdokument:	**EAD 330076-01-0604**
Euroopa tehniline hinnang:	**ETA-22/0438**
Tehnilise hindamise asutus:	**TZUS - Technical and Test Institute for Construction**
Teavitatud asutus(ed):	**2873 - IFSW - Technische Universität Darmstadt**

6.) Deklareeritud toimivus:

a) Mehaaniline vastupidavus ja stabiilsus (BWR 1) ning ohutus ja juurdepääsetavus (BWR 4)

Põhiomadused	Toimivus
Vastupidavuse iseloomulikud väärtused	Lisa C 6 kuni C 40
Ümberpaigutused	Lisa C 5 kuni C 39
Vastupidavus	Vt lisa B1

TOIMIVUSDEKLARATSIOON

nr **4 - 020 - 22/0438 - 2022/01** **EE**

EJOT®

b) Ohutus tulekahju korral (BWR 2)

Põhiomadused	Toimivus
Reaktsioon tulekahjule	Kinnituspunktid vastavad klassi A1 nõuetele

c) Hügieen, tervis ja keskkond (BWR 3)

Põhiomadused	Toimivus

d) Kaitse müra eest (BWR 5)

Põhiomadused	Toimivus

e) Energiasääst ja soojapidavus (BWR 6)

Põhiomadused	Toimivus

f) Loodusvarade säästev kasutamine (BWR 7)

Põhiomadused	Toimivus

Eespool kirjeldatud toote toimivus vastab deklareeritud toimivusele. Käesolev toimivusdeklaratsioon on välja antud kooskõlas määrusega (EL) nr 305/2011 eespool nimetatud tootja ainuvastutusel.

Tootja poolt ja nimel allkirjastanud:

Dr. Jens Weber
(Nimi)

Bad Laasphe, 16.09.2022
(Koht ja kuupäev)

(Allkiri)

DECLARACIÓN DE PRESTACIONES

no **4 - 020 - 22/0438 - 2022/01** **ES**

1.) Código de identificación única del producto tipo:

(033) Injection system EJOT Multifix PSF+ / Sormat ITH-Pe, EJOT Multifix PSF+ Tropical/ Sormat ITH-Te, EJOT Multifix PSF+ Winter

2.) Usos previstos:

Anclajes de inyección para uso en mampostería

3.) Fabricante:

EJOT SE & Co. KG, MU Construction, In der Stockwiese 35, 57334 Bad Laasphe - Germany

4.) Sistemas de evaluación y verificación de la constancia de las prestaciones (EVCP):

Sistema 1

5.)

Documento de evaluación europeo:	**EAD 330076-01-0604**
Evaluación técnica europea:	**ETA-22/0438**
Organismo de evaluación técnica:	**TZUS - Technical and Test Institute for Construction**
Organismos notificados:	**2873 - IFSW - Technische Universität Darmstadt**

6.) Prestaciones declaradas:

a) Resistencia mecánica y estabilidad (BWR 1) y seguridad y accesibilidad (BWR 4)

Características esenciales	Prestaciones
Valores característicos de la resistencia	Anexo C 6 a C 40
Desplazamientos	Anexo C 5 a C 39
Durabilidad	Véase el anexo B1

DECLARACIÓN DE PRESTACIONES

no **4 - 020 - 22/0438 - 2022/01** **ES**

EJOT®

b) Seguridad en caso de incendio (BWR 2)

Características esenciales	Prestaciones
Reacción al fuego	Los anclajes cumplen los requisitos de la clase A1

c) Higiene, salud y medio ambiente (BWR 3)

Características esenciales	Prestaciones

d) Protección contra el ruido (BWR 5)

Características esenciales	Prestaciones

e) Ahorro de energía y retención del calor (BWR 6)

Características esenciales	Prestaciones

f) Uso sostenible de los recursos naturales (BWR 7)

Características esenciales	Prestaciones

Las prestaciones del producto identificado anteriormente son conformes con el conjunto de prestaciones declaradas. La presente declaración de prestaciones se emite, de conformidad con el Reglamento (UE) no 305/2011, bajo la sola responsabilidad del fabricante arriba identificado.

Firmado por y en nombre del fabricante por:

Dr. Jens Weber
(nombre)

Bad Laasphe, 16.09.2022
(lugar y fecha de emisión)

(firma)

SUORITUSTASOILMOITUS

Nro **4 - 020 - 22/0438 - 2022/01** **FI**

1.) Tuotetyypin yksilöllinen tunniste:

(033) Injection system EJOT Multifix PSF+ / Sormat ITH-Pe, EJOT Multifix PSF+ Tropical/ Sormat ITH-Te, EJOT Multifix PSF+ Winter

2.) Aiottu käyttötarkoitus (aiotut käyttötarkoitukset):

Muurauksessa käytettävät injektioankkurit

3.) Valmistaja:

EJOT SE & Co. KG, MU Construction, In der Stockwiese 35, 57334 Bad Laasphe - Germany

4.) Suoritustason pysyvyyden arvioinnissa ja varmentamisessa käytetty järjestelmä/käytetyt järjestelmät:

Järjestelmä 1

5.)

Eurooppalainen arviointiasiakirja:	**EAD 330076-01-0604**
Eurooppalainen tekninen arviointi:	**ETA-22/0438**
Teknisestä arvioinnista vastaava laitos:	**TZUS - Technical and Test Institute for Construction**
Ilmoitettu laitos/ilmoitetut laitokset:	**2873 - IFSW - Technische Universität Darmstadt**

6.) Ilmoitettu suoritustaso/ilmoitetut suoritustasot:

a) Mekaaninen kestävyys ja vakavuus (BWR 1) sekä turvallisuus ja saavutettavuus (BWR 4)

Perusominaisuudet	Tuotteen suoritustaso
Vastuksen ominaisarvot	Liite C 6-C 40
Siirtymät	Liite C 5-C 39
Kestävyys	Ks. liite B1

SUORITUSTASOILMOITUS

Nro **4 - 020 - 22/0438 - 2022/01** **FI**

EJOT®

b) Turvallisuus tulipalon sattuessa (BWR 2)

Perusominaisuudet	Tuotteen suoritustaso
Reagointi tulipaloon	Kiinnityspisteet täyttävät A1-luokan vaatimukset

c) Hygienia, terveys ja ympäristö (BWR 3)

Perusominaisuudet	Tuotteen suoritustaso

d) Suojaus melua vastaan (BWR 5)

Perusominaisuudet	Tuotteen suoritustaso

e) Energiansäästö ja lämmöntalteenotto (BWR 6)

Perusominaisuudet	Tuotteen suoritustaso

f) Luonnonvarojen kestävä käyttö (BWR 7)

Perusominaisuudet	Tuotteen suoritustaso

Edellä yksilöidyn tuotteen suoritustaso on ilmoitettujen suoritustasojen joukon mukainen. Tämä suoritustasoilmoitus on asetuksen (EU) N:o 305/2011 mukaisesti annettu edellä ilmoitetun valmistajan yksinomaisella vastuulla.

Valmistajan puolesta allekirjoittanut:

Dr. Jens Weber
(nimi)

Bad Laasphe, 16.09.2022
(paikka ja päivämäärä)

(allekirjoitus)

DÉCLARATION DES PERFORMANCES

No **4 - 020 - 22/0438 - 2022/01** **FR**

1.) Code d'identification unique du produit type:

(033) Injection system EJOT Multifix PSF+ / Sormat ITH-Pe, EJOT Multifix PSF+ Tropical/ Sormat ITH-Te, EJOT Multifix PSF+ Winter

2.) Usage(s) prévu(s):

Ancrages à injection pour utilisation dans la maçonnerie

3.) Fabricant:

EJOT SE & Co. KG, MU Construction, In der Stockwiese 35, 57334 Bad Laasphe - Germany

4.) Système(s) d'évaluation et de vérification de la constance des performances:

Système 1

5.)

Document d'évaluation européen:	**EAD 330076-01-0604**
Évaluation technique européenne:	**ETA-22/0438**
Organisme d'évaluation technique:	**TZUS - Technical and Test Institute for Construction**
Organisme(s) notifié(s):	**2873 - IFSW - Technische Universität Darmstadt**

6.) Performance(s) déclarée(s):

a) Résistance mécanique et stabilité (BWR 1) et sécurité et accessibilité (BWR 4)

Caractéristiques essentielles	Performances du produit
Valeurs caractéristiques de la résistance	Annexe C 6 à C 40
Déplacements	Annexe C 5 à C 39
Durabilité	Voir annexe B1

DÉCLARATION DES PERFORMANCES

No **4 - 020 - 22/0438 - 2022/01** **FR**

EJOT®

b) Sécurité en cas d'incendie (REB 2)

Caractéristiques essentielles	Performances du produit
Réaction au feu	Les ancrages répondent aux exigences de la classe A1

c) Hygiène, santé et environnement (REB 3)

Caractéristiques essentielles	Performances du produit

d) Protection contre le bruit (REB 5)

Caractéristiques essentielles	Performances du produit

e) Économie d'énergie et rétention de la chaleur (REB 6)

Caractéristiques essentielles	Performances du produit

f) Utilisation durable des ressources naturelles (REB 7)

Caractéristiques essentielles	Performances du produit

Les performances du produit identifié ci-dessus sont conformes aux performances déclarées. Conformément au règlement (UE) no 305/2011, la présente déclaration des performances est établie sous la seule responsabilité du fabricant mentionné ci-dessus.

Signé pour le fabricant et en son nom par:

Dr. Jens Weber
(Nom)

Bad Laasphe, 16.09.2022
(Lieu et date)

(Signature)

ΔΗΛΩΣΗ ΕΠΙΔΟΣΕΩΝ

Αριθ. **4 - 020 - 22/0438 - 2022/01** **GR**

1.) Μοναδικός κωδικός ταυτοποίησης του τύπου του προϊόντος:

(033) Injection system EJOT Multifix PSF+ / Sormat ITH-Pe, EJOT Multifix PSF+ Tropical/ Sormat ITH-Te, EJOT Multifix PSF+ Winter

2.) Προβλεπόμενη(-ες) χρήση(-εις):

Αγκύρια έγχυσης για χρήση σε τοιχοποιία

3.) Κατασκευαστής:

EJOT SE & Co. KG, MU Construction, In der Stockwiese 35, 57334 Bad Laasphe - Germany

4.) Σύστημα/συστήματα AVCP (αξιολόγηση και επαλήθευση της σταθερότητας της επίδοσης):

σύστημα 1

5.)

Ευρωπαϊκό έγγραφο αξιολόγησης:	**EAD 330076-01-0604**
Ευρωπαϊκή τεχνική αξιολόγηση:	**ETA-22/0438**
Οργανισμός τεχνικής αξιολόγησης:	**TZUS - Technical and Test Institute for Construction**
Κοινοποιημένος(-οι) οργανισμός(-οι):	**2873 - IFSW - Technische Universität Darmstadt**

6.) Δηλωθείσα(-ες) επίδοση(-εις):

a) Μηχανική αντίσταση και σταθερότητα (BWR 1) και ασφάλεια και προσβασιμότητα (BWR 4)

Ουσιώδη χαρακτηριστικά	Απόδοση
Χαρακτηριστικές τιμές για την αντίσταση	Παράρτημα Γ 6 έως Γ 40
Μετατοπίσεις	Παράρτημα Γ 5 έως Γ 39
Ανθεκτικότητα	Βλέπε παράρτημα B1

ΔΗΛΩΣΗ ΕΠΙΔΟΣΕΩΝ

Αριθ. **4 - 020 - 22/0438 - 2022/01** **GR**

b) Ασφάλεια σε περίπτωση πυρκαγιάς (BWR 2)

Ουσιώδη χαρακτηριστικά	Απόδοση
Αντίδραση στη φωτιά	Οι αγκυρώσεις πληρούν τις απαιτήσεις για την κατηγορία A1

c) Υγιεινή, υγεία και περιβάλλον (BWR 3)

Ουσιώδη χαρακτηριστικά	Απόδοση

d) Προστασία από θόρυβο (BWR 5)

Ουσιώδη χαρακτηριστικά	Απόδοση

e) Εξοικονόμηση ενέργειας και συγκράτηση θερμότητας (BWR 6)

Ουσιώδη χαρακτηριστικά	Απόδοση

f) Εξοικονόμηση ενέργειας και συγκράτηση θερμότητας (BWR 7)

Ουσιώδη χαρακτηριστικά	Απόδοση

Η επίδοση του προϊόντος που ταυτοποιείται ανωτέρω είναι σύμφωνη με τη (τις) δηλωθείσα(-ες) επίδοση(-εις). Η δήλωση αυτή των επιδόσεων συντάσσεται, σύμφωνα με τον κανονισμό (ΕΕ) αριθ. 305/2011, με αποκλειστική ευθύνη του κατασκευαστή που ταυτοποιείται ανωτέρω.

Υπογραφή για λογαριασμό και εξ ονόματος του κατασκευαστή από:

Dr. Jens Weber
(όνομα)

Bad Laasphe, 16.09.2022
(τόπος και ημερομηνία έκδοσης)

(υπογραφή)

IZJAVA O SVOJSTVIMA

Br. **4 - 020 - 22/0438 - 2022/01** **HR**

1.) Jedinstvena identifikacijska oznaka vrste proizvoda:

(033) Injection system EJOT Multifix PSF+ / Sormat ITH-Pe, EJOT Multifix PSF+ Tropical/ Sormat ITH-Te, EJOT Multifix PSF+ Winter

2.) Namjena/namjene:

Injekcijska sidra za zidanje

3.) Proizvođač:

EJOT SE & Co. KG, MU Construction, In der Stockwiese 35, 57334 Bad Laasphe - Germany

4.) Sustav/sustavi za ocjenu i provjeru stalnosti svojstava (AVCP):

Sustav 1

5.)

Europski dokument za ocjenjivanje:	**EAD 330076-01-0604**
Europska tehnička ocjena:	**ETA-22/0438**
Tijelo za tehničko ocjenjivanje:	**TZUS - Technical and Test Institute for Construction**
Prijavljeno tijelo/prijavljena tijela:	**2873 - IFSW - Technische Universität Darmstadt**

6.) Objavljena svojstva:

a) Mehanička otpornost i stabilnost (BWR 1) i sigurnost i pristupačnost (BWR 4)

Bitne karakteristike	Svojstva
Karakteristične vrijednosti za otpor	Dodatak C 6 do C 40
Pomaci	Dodatak C 5 do C 39
Izdržljivost	Vidi Dodatak B1

IZJAVA O SVOJSTVIMA

Br. **4 - 020 - 22/0438 - 2022/01** **HR**

EJOT®

b) Sigurnost u slučaju požara (BWR 2)

Bitne karakteristike	Svojstva
Reakcija na vatru	Sidrišta zadovoljavaju zahtjeve za klasu A1

c) Higijena, zdravlje i okoliš (BWR 3)

Bitne karakteristike	Svojstva

d) Zaštita od buke (BWR 5)

Bitne karakteristike	Svojstva

e) Ušteda energije i zadržavanje topline (BWR 6)

Bitne karakteristike	Svojstva

f) Održivo korištenje prirodnih resursa (BWR 7)

Bitne karakteristike	Svojstva

Prije utvrđeno svojstvo proizvoda u skladu je s objavljenim svojstvima. Ova izjava o svojstvima izdaje se, u skladu s Uredbom (EU) br. 305/2011, pod isključivom odgovornošću prethodno utvrđenog proizvođača.

Za proizvođača i u njegovo ime potpisao:

Dr. Jens Weber
(ime)

Bad Laasphe, 16.09.2022
(Mjesto i datum izdavanja)

(potpis)

TELJESÍTMÉNYNYILATKOZAT

Száma: **4 - 020 - 22/0438 - 2022/01** **HU**

1.) A terméktípus egyedi azonosító kódja:

(033) Injection system EJOT Multifix PSF+ / Sormat ITH-Pe, EJOT Multifix PSF+ Tropical/ Sormat ITH-Te, EJOT Multifix PSF+ Winter

2.) Felhasználás célja(i):

Injekciós horgonyok falazatba való beépítéshez

3.) Gyártó:

EJOT SE & Co. KG, MU Construction, In der Stockwiese 35, 57334 Bad Laasphe - Germany

4.) Az AVCP-rendszer(ek):

rendszer 1

5.)

Az európai értékelési dokumentum:	**EAD 330076-01-0604**
Európai műszaki értékelés:	**ETA-22/0438**
A műszaki értékelést végző szerv:	**TZUS - Technical and Test Institute for Construction**
Bejelentett szerv(ek):	**2873 - IFSW - Technische Universität Darmstadt**

6.) A nyilatkozatban szereplő teljesítmény(ek):

a) Mechanikai ellenállás és stabilitás (BWR 1), biztonság és elérhetőség (BWR 4)

Lényeges termékjellemzők	Termék teljesítménye
Az ellenállás jellemző értékei	C 6-C 40. melléklet
Elmozdulások	C 5-C 39. melléklet
Tartósság	Lásd a B. mellékletet 1

TELJESÍTMÉNYNYILATKOZAT

Száma: **4 - 020 - 22/0438 - 2022/01** **HU**

EJOT®

b) Biztonság tűz esetén (BWR 2)	
Lényeges termékjellemzők	Termék teljesítménye
Tűzre adott reakció	A rögzítések megfelelnek az A1 osztály követelményeinek

c) Higiénia, egészség és környezet (BWR 3)	
Lényeges termékjellemzők	Termék teljesítménye

d) Zaj elleni védelem (BWR 5)	
Lényeges termékjellemzők	Termék teljesítménye

e) Energiatakarékosság és hővisszatartás (BWR 6)	
Lényeges termékjellemzők	Termék teljesítménye

f) A természeti erőforrások fenntartható használata (BWR 7)	
Lényeges termékjellemzők	Termék teljesítménye

A fent azonosított termék teljesítménye megfelel a bejelentett teljesítmény(ek)nek. A 305/2011/EU rendeletnek megfelelően e teljesítménynyilatkozat kiadásáért kizárólag a fent meghatározott gyártó a felelős.

A gyártó nevében és részéről aláíró személy:

Dr. Jens Weber
(név)

Bad Laasphe, 16.09.2022
(hely és kiállítás dátuma)

(aláírás)

DICHIARAZIONE DI PRESTAZIONE

N. **4 - 020 - 22/0438 - 2022/01** **IT**

1.) Codice di identificazione unico del prodotto-tipo:

(033) Injection system EJOT Multifix PSF+ / Sormat ITH-Pe, EJOT Multifix PSF+ Tropical/ Sormat ITH-Te, EJOT Multifix PSF+ Winter

2.) Usi previsti:

Ancoraggi a iniezione per l'utilizzo in muratura

3.) Fabbricante:

EJOT SE & Co. KG, MU Construction, In der Stockwiese 35, 57334 Bad Laasphe - Germany

4.) Sistemi di VVCP:

Sistema 1

5.)

Documento per la valutazione europea:	**EAD 330076-01-0604**
Valutazione tecnica europea:	**ETA-22/0438**
Organismo di valutazione tecnica:	**TZUS - Technical and Test Institute for Construction**
Organismi notificati:	**2873 - IFSW - Technische Universität Darmstadt**

6.) Prestazioni dichiarate:

a) Resistenza meccanica e stabilità (BWR 1) e sicurezza e accessibilità (BWR 4)

Caratteristiche essenziali	Prestazione
Valori caratteristici per la resistenza	Allegato C 6 a C 40
Spostamenti	Allegato C 5 a C 39
Durata	Vedi allegato B1

DICHIARAZIONE DI PRESTAZIONE

N. **4 - 020 - 22/0438 - 2022/01** **IT**

EJOT®

b) Sicurezza in caso di incendio (BWR 2)

Caratteristiche essenziali	Prestazione
Reazione al fuoco	Gli ancoraggi soddisfano i requisiti della classe A1

c) Igiene, salute e ambiente (BWR 3)

Caratteristiche essenziali	Prestazione

d) Protezione contro il rumore (BWR 5)

Caratteristiche essenziali	Prestazione

e) Economia energetica e ritenzione di calore (BWR 6)

Caratteristiche essenziali	Prestazione

f) Uso sostenibile delle risorse naturali (BWR 7)

Caratteristiche essenziali	Prestazione

La prestazione del prodotto sopra identificato è conforme all'insieme delle prestazioni dichiarate. La presente dichiarazione di responsabilità viene emessa, in conformità al regolamento (UE) n. 305/2011, sotto la sola responsabilità del fabbricante sopra identificato.

Firmato a nome e per conto del fabbricante da:

Dr. Jens Weber
(nome)

Bad Laasphe, 16.09.2022
(luogo e data del rilascio)

(firma)

EKSPLOATACINIŲ SAVYBIŲ DEKLARACIJA

Nr. **4 - 020 - 22/0438 - 2022/01** **LT**

1.) Produkto tipo unikalus identifikavimo kodas:

(033) Injection system EJOT Multifix PSF+ / Sormat ITH-Pe, EJOT Multifix PSF+ Tropical/ Sormat ITH-Te, EJOT Multifix PSF+ Winter

2.) Naudojimo paskirtis (-ys):

Injekciniai inkarai, skirti naudoti mūre

3.) Gamintojas:

EJOT SE & Co. KG, MU Construction, In der Stockwiese 35, 57334 Bad Laasphe - Germany

4.) Eksploatacinių savybių pastovumo vertinimo ir tikrinimo sistema (-os):

Sistema 1

5.)

Europos vertinimo dokumentas:	**EAD 330076-01-0604**
Europos techninis įvertinimas:	**ETA-22/0438**
Techninio vertinimo įstaiga:	**TZUS - Technical and Test Institute for Construction**
Notifikuotoji (-osios) įstaiga (-os):	**2873 - IFSW - Technische Universität Darmstadt**

6.) Deklaruojama (-os) eksploatacinė (-ės) savybė (-ės):

a) Mechaninis atsparumas ir stabilumas (BWR 1) ir saugumas bei prieinamumas (BWR 4)

Esminės charakteristikos	Eksploatacinės savybės
Īpatnējās pretestības vērtības	C 6-C 40 priedai
Poslinkiai	C 5-C 39 priedai
Patvarumas	Žr. B priedą 1

EKSPLOATACINIŲ SAVYBIŲ DEKLARACIJA

Nr. **4 - 020 - 22/0438 - 2022/01** **LT**

EJOT®

b) Sauga gaisro atveju (BWR 2)

Esminės charakteristikos	Eksploatacinės savybės
Reakcija į ugnį	Įtvirtinimai atitinka A1 klasės reikalavimus

c) Higiena, sveikata ir aplinka (BWR 3)

Esminės charakteristikos	Eksploatacinės savybės

d) Apsauga nuo triukšmo (BWR 5)

Esminės charakteristikos	Eksploatacinės savybės

e) Energijos taupymas ir šilumos išsaugojimas (BWR 6)

Esminės charakteristikos	Eksploatacinės savybės

f) Tvarus gamtos išteklių naudojimas (BWR 7)

Esminės charakteristikos	Eksploatacinės savybės

Nurodyto produkto eksploatacinės savybės atitinka visas deklaruotas eksploatacines savybes. Ši eksploatacinių savybių deklaracija pateikiama vadovaujantis Reglamentu (ES) Nr. 305/2011, atsakomybė už jos turinį tenka tik joje nurodytam gamintojui.

Pasirašyta (gamintojo ir jo vardu):

Dr. Jens Weber
(vardas)

Bad Laasphe, 16.09.2022
(išdavimo vieta ir data)

(parašas)

EKSPLUATĀCIJAS ĪPAŠĪBU DEKLARĀCIJA

Nr. **4 - 020 - 22/0438 - 2022/01** **LV**

1.) Unikālais izstrādājuma tipa identifikācijas numurs:

(033) Injection system EJOT Multifix PSF+ / Sormat ITH-Pe, EJOT Multifix PSF+ Tropical/ Sormat ITH-Te, EJOT Multifix PSF+ Winter

2.) Paredzētais izmantojums:

Injekcijas enkuri izmantošanai mūrī

3.) Ražotājs:

EJOT SE & Co. KG, MU Construction, In der Stockwiese 35, 57334 Bad Laasphe - Germany

4.) Ekspluatācijas īpašību noturības novērtējuma un pārbaudes (AVCP) sistēma(-as):

Sistēma 1

5.)

Eiropas novērtējuma dokuments:	**EAD 330076-01-0604**
Eiropas tehniskais novērtējums:	**ETA-22/0438**
Tehniskā novērtējuma iestāde:	**TZUS - Technical and Test Institute for Construction**
Paziņotā(-ās) iestāde(-es):	**2873 - IFSW - Technische Universität Darmstadt**

6.) Deklarētā(-ās) ekspluatācijas īpašība(-as):

a) Mehāniskā izturība un stabilitāte (BWR 1) un drošība un pieejamība (BWR 4)

Būtiskie raksturlielumi	Ekspluatācijas īpašības
Īpatnējās pretestības vērtības	C 6. līdz C 40. pielikums
Pārvietojumi	C 5. līdz C 39. pielikums
Izturība	Skatīt B pielikumu 1

EKSPLUATĀCIJAS ĪPAŠĪBU DEKLARĀCIJA

Nr. **4 - 020 - 22/0438 - 2022/01** **LV**

EJOT®

b) Drošība ugunsgrēka gadījumā (BWR 2)

Būtiskie raksturlielumi	Ekspluatācijas īpašības
Reakcija uz ugunsgrēku	Stiprinājumi atbilst A1 klases prasībām

c) Higiēna, veselība un vide (BWR 3)

Būtiskie raksturlielumi	Ekspluatācijas īpašības

d) Aizsardzība pret troksni (BWR 5)

Būtiskie raksturlielumi	Ekspluatācijas īpašības

e) Enerģijas ekonomija un siltuma saglabāšana (BWR 6)

Būtiskie raksturlielumi	Ekspluatācijas īpašības

f) Dabas resursu ilgtspējīga izmantošana (BWR 7)

Būtiskie raksturlielumi	Ekspluatācijas īpašības

Iepriekš norādītā izstrādājuma ekspluatācijas īpašības atbilst deklarēto ekspluatācijas īpašību kopumam. Šī ekspluatācijas īpašību deklarācija izdota saskaņā ar Regulu (ES) Nr. 305/2011, un par to ir atbildīgs vienīgi iepriekš norādītais ražotājs.

Parakstīts ražotāja vārdā:

Dr. Jens Weber
(Vārds)

Bad Laasphe, 16.09.2022
(Izsniegšanas vieta un datums)

(Paraksts)

DIKJARAZZJONI TA' PRESTAZZJONI

Nru. **4 - 020 - 22/0438 - 2022/01** **MT**

1.) Kodiċi uniku ta' identifikazzjoni tat-tip tal-prodott:

(033) Injection system EJOT Multifix PSF+ / Sormat ITH-Pe, EJOT Multifix PSF+ Tropical/ Sormat ITH-Te, EJOT Multifix PSF+ Winter

2.) Użu/i intenzjonat/i:

Ankri ta' injezzjoni għall-użu fil-ġebel

3.) Manifattur:

EJOT SE & Co. KG, MU Construction, In der Stockwiese 35, 57334 Bad Laasphe - Germany

4.) Sistema/i ta' AVCP:

Sistema 1

5.)

Dokument Ewropew ta' Valutazzjoni:	**EAD 330076-01-0604**
Valutazzjoni Teknika Ewropea:	**ETA-22/0438**
Korp tal-Valutazzjoni Teknika:	**TZUS - Technical and Test Institute for Construction**
Korp/i nnotifikat/i:	**2873 - IFSW - Technische Universität Darmstadt**

6.) Prestazzjoni/jiet ddikjarata/i:

a) Mehāniskā pretestība un stabilitāte (BPP 1) un drošība un pieejamība (BPP 4)

Karatteristiċi essenzjali	Prestazzjoni
Valuri karatteristiċi għar-reżistenza	Anness C 6 sa C 40
Spostamenti	Anness C 5 sa C 39
Durabilità	Ara l-Anness B1

DIKJARAZZJONI TA' PRESTAZZJONI

Nru. **4 - 020 - 22/0438 - 2022/01** **MT**

EJOT®

b) Sigurtà fil-każ ta 'nar (BWR 2)

Karatteristiċi essenzjali	Prestazzjoni
Reazzjoni għan-nar	L-ankraġġi jissodisfaw ir-rekwiżiti għall-Klassi A1

c) Iġjene, saħħa u ambjent (BWR 3)

Karatteristiċi essenzjali	Prestazzjoni

d) Protezzjoni kontra l-istorbju (BWR 5)

Karatteristiċi essenzjali	Prestazzjoni

e) Ekonomija tal-enerġija u żamma tas-sħana (BWR 6)

Karatteristiċi essenzjali	Prestazzjoni

f) Użu sostenibbli tar-riżorsi naturali (BWR 7)

Karatteristiċi essenzjali	Prestazzjoni

Il-prestazzjoni tal-prodott identifikat hawn fuq hija konformi mal-prestazzjonijiet iddikjarati. Din id-dikjarazzjoni ta' prestazzjoni hija maħruġa, skont ir-Regolament (UE) Nru 305/2011, taħt ir-responsabbiltà unika tal-manifattur identifikat hawn fuq.

Iffirmat għal u f'isem il-manifattur minn:

Dr. Jens Weber
(isem)

Bad Laasphe, 16.09.2022
(post u data tal-ħruġ)

(firma)

PRESTATIEVERKLARING

Nr. **4 - 020 - 22/0438 - 2022/01** **NL**

1.) Unieke identificatiecode van het producttype:

(033) Injection system EJOT Multifix PSF+ / Sormat ITH-Pe, EJOT Multifix PSF+ Tropical/ Sormat ITH-Te, EJOT Multifix PSF+ Winter

2.) Beoogd(e) gebruik(en):

Spuitankers voor gebruik in metselwerk

3.) Fabrikant:

EJOT SE & Co. KG, MU Construction, In der Stockwiese 35, 57334 Bad Laasphe - Germany

4.) Het systeem of de systemen voor de beoordeling en verificatie van de prestatiebestendigheid:

Systeem 1

5.)

Europees beoordelingsdocument:	**EAD 330076-01-0604**
Europese technische beoordeling:	**ETA-22/0438**
Technische beoordelingsinstantie:	**TZUS - Technical and Test Institute for Construction**
Aangemelde instantie(s):	**2873 - IFSW - Technische Universität Darmstadt**

6.) Aangegeven prestatie(s):

a) Mehāniskā izturība un stabilitāte (BWR 1) un drošība un pieejamība (BWR 4)

Essentiële kenmerken	Prestaties
Karakteristieke waarden voor de weerstand	Bijlage C 6 tot en met C 40
Verplaatsingen	Bijlage C 5 tot en met C 39
Duurzaamheid	Zie bijlage B1

PRESTATIEVERKLARING

Nr. **4 - 020 - 22/0438 - 2022/01** **NL**

EJOT®

b) Veiligheid in geval van brand (BWR 2)

Essentiële kenmerken	Prestaties
Reactie op vuur	Verankeringen voldoen aan de eisen voor klasse A1

c) Hygiëne, gezondheid en het milieu (BWR 3)

Essentiële kenmerken	Prestaties

d) Bescherming tegen lawaai (BWR 5)

Essentiële kenmerken	Prestaties

e) Energiebesparing en warmtebehoud (BWR 6)

Essentiële kenmerken	Prestaties

f) Duurzaam gebruik van natuurlijke hulpbronnen (BWR 7)

Essentiële kenmerken	Prestaties

De prestaties van het hierboven omschreven product zijn conform de aangegeven prestaties. Deze prestatieverklaring wordt in overeenstemming met Verordening (EU) nr. 305/2011 onder de exclusieve verantwoordelijkheid van de hierboven vermelde fabrikant verstrekt.

Ondertekend voor en namens de fabrikant door:

Dr. Jens Weber
(naam)

Bad Laasphe, 16.09.2022
(plaats en datum van afgifte)

(handtekening)

DEKLARACJA WŁAŚCIWOŚCI UŻYTKOWYCH

Nr **4 - 020 - 22/0438 - 2022/01** **PL**

1.) Niepowtarzalny kod identyfikacyjny typu wyrobu:

(033) Injection system EJOT Multifix PSF+ / Sormat ITH-Pe, EJOT Multifix PSF+ Tropical/ Sormat ITH-Te, EJOT Multifix PSF+ Winter

2.) Zamierzone zastosowanie lub zastosowania:

Kotwy iniekcyjne do stosowania w murze

3.) Producent:

EJOT SE & Co. KG, MU Construction, In der Stockwiese 35, 57334 Bad Laasphe - Germany

4.) System(-y) oceny i weryfikacji stałości właściwości użytkowych:

system 1

5.)

Europejski Dokument Oceny:	**EAD 330076-01-0604**
Europejska Ocena Techniczna:	**ETA-22/0438**
Jednostka ds. Oceny Technicznej:	**TZUS - Technical and Test Institute for Construction**
Jednostka lub Jednostki Notyfikowane:	**2873 - IFSW - Technische Universität Darmstadt**

6.) Deklarowane właściwości użytkowe:

a) Nośność i stateczność (BWR 1) oraz bezpieczeństwo użytkowania (BWR 4)

Zasadnicze charakterystyki	Właściwości użytkowe
Wartości charakterystyczne dla rezystancji	Załącznik C 6 do C 40
Przesunięcia	Załącznik C 5 do C 39
Wytrzymałość	Patrz załącznik B1

DEKLARACJA WŁAŚCIWOŚCI UŻYTKOWYCH

Nr **4 - 020 - 22/0438 - 2022/01** **PL**

EJOT®

b) Bezpieczeństwo pożarowe (BWR 2)

Zasadnicze charakterystyki	Właściwości użytkowe
Reakcja na ogień	Zakotwienia spełniają wymagania dla klasy A1

c) Higiena, zdrowie i środowisko (BWR 3)

Zasadnicze charakterystyki	Właściwości użytkowe

d) Ochrona przed hałasem (BWR 5)

Zasadnicze charakterystyki	Właściwości użytkowe

e) Oszczędność energii i zatrzymywanie ciepła (BWR 6)

Zasadnicze charakterystyki	Właściwości użytkowe

f) Zrównoważone wykorzystanie zasobów naturalnych (BWR 7)

Zasadnicze charakterystyki	Właściwości użytkowe

Właściwości użytkowe określonego powyżej wyrobu są zgodne z zestawem deklarowanych właściwości użytkowych. Niniejsza deklaracja właściwości użytkowych wydana zostaje zgodnie z Rozporządzeniem (UE) nr 305/2011 na wyłączną odpowiedzialność producenta określonego powyżej.

W imieniu producenta podpisał(-a):

dr Jens Weber
(nazwisko)

Bad Laasphe, 16.09.2022
(miejsce i data wydania)

(podpis)

DECLARAÇÃO DE DESEMPENHO

N.o **4 - 020 - 22/0438 - 2022/01** **PT**

1.) Código de identificação único do produto-tipo:

(033) Injection system EJOT Multifix PSF+ / Sormat ITH-Pe, EJOT Multifix PSF+ Tropical/ Sormat ITH-Te, EJOT Multifix PSF+ Winter

2.) Utilização(ões) prevista(s)

âncoras de injecção para utilização em alvenaria

3.) Fabricante:

EJOT SE & Co. KG, MU Construction, In der Stockwiese 35, 57334 Bad Laasphe - Germany

4.) Sistema(s) de avaliação e verificação da regularidade do desempenho (AVCP):

Sistema 1

5.)

Documento de Avaliação Europeu:	**EAD 330076-01-0604**
Avaliação Técnica Europeia	**ETA-22/0438**
Organismo de Avaliação Técnica:	**TZUS - Technical and Test Institute for Construction**
Organismo(s) notificado (s):	**2873 - IFSW - Technische Universität Darmstadt**

6.) Desempenho(s) declarado(s):

a) Resistência mecânica e estabilidade (BWR 1) e segurança e acessibilidade (BWR 4)

Características essenciais	Desempenho
Valores característicos de resistência	Anexos C 6 a C 40
Deslocações	Anexos C 5 a C 39
Durabilidade	Ver Anexo B1

DECLARAÇÃO DE DESEMPENHO

N.o **4 - 020 - 22/0438 - 2022/01** **PT**

EJOT®

b) Segurança em caso de incêndio (BWR 2)

Características essenciais	Desempenho
Reacção ao fogo	As ancoragens satisfazem os requisitos da Classe A1

c) Higiene, saúde e meio ambiente (BWR 3)

Características essenciais	Desempenho

d) Protecção contra o ruído (BWR 5)

Características essenciais	Desempenho

e) Economia de energia e retenção de calor (BWR 6)

Características essenciais	Desempenho

f) Utilização sustentável dos recursos naturais (BWR 7)

Características essenciais	Desempenho

O desempenho do produto identificado acima está em conformidade com o conjunto de desempenhos declarados. A presente declaração de desempenho é emitida, em conformidade com o Regulamento (UE) n.o 305/2011, sob a exclusiva responsabilidade do fabricante identificado acima.

Assinado por e em nome do fabricante por:

Dr. Jens Weber
(nome)

Bad Laasphe, 16.09.2022
(local e data de emissão)

(assinatura)

DECLARAȚIA DE PERFORMANȚĂ

Nr, **4 - 020 - 22/0438 - 2022/01** **RO**

1.) Cod unic de identificare al produsului-tip:

(033) Injection system EJOT Multifix PSF+ / Sormat ITH-Pe, EJOT Multifix PSF+ Tropical/ Sormat ITH-Te, EJOT Multifix PSF+ Winter

2.) Utilizare (utilizări) preconizată (preconizate):

Ancore de injecție pentru utilizare în zidărie

3.) Fabricant:

EJOT SE & Co. KG, MU Construction, In der Stockwiese 35, 57334 Bad Laasphe - Germany

4.) Sistemul (sistemele) de evaluare și de verificare a constanței performanței:

Sistemul 1

5.)

Documentul de evaluare european:	**EAD 330076-01-0604**
Evaluarea tehnică europeană:	**ETA-22/0438**
Organismul de evaluare tehnică:	**TZUS - Technical and Test Institute for Construction**
Organism (organisme) notificat(e):	**2873 - IFSW - Technische Universität Darmstadt**

6.) Performanța (performanțe) declarată (declarate):

a) Rezistența mecanică și stabilitatea (BWR 1) și siguranța și accesibilitatea (BWR 4)

Caracteristici esenţiale	Performanţa produsului
Valori caracteristice pentru rezistență	Anexa C 6 la C 40
Deplasări	Anexa C 5 la C 39
Durabilitate	A se vedea anexa B1

DECLARAȚIA DE PERFORMANȚĂ

Nr, **4 - 020 - 22/0438 - 2022/01** **RO**

EJOT®

b) Siguranța în caz de incendiu (BWR 2)

Caracteristici esenţiale	Performanţa produsului
Reacția la foc	Ancorajele îndeplinesc cerințele pentru clasa A1

c) Igiena, sănătatea și mediul (BWR 3)

Caracteristici esenţiale	Performanţa produsului

d) Protecție împotriva zgomotului (BWR 5)

Caracteristici esenţiale	Performanţa produsului

e) Economie de energie și păstrarea căldurii (BWR 6)

Caracteristici esenţiale	Performanţa produsului

f) Utilizarea durabilă a resurselor naturale (BWR 7)

Caracteristici esenţiale	Performanţa produsului

Performanța produsului identificat mai sus este în conformitate cu setul de performanțe declarate. Această declarație de performanță este eliberată în conformitate cu Regulamentul (UE) nr. 305/2011, pe răspunderea exclusivă a fabricantului identificat mai sus.

Semnată pentru și în numele fabricantului de către:

Dr. Jens Weber
(numele)

Bad Laasphe, 16.09.2022
(locul şi data emiterii)

(semnătură)

PRESTANDADEKLARATION

Nr **4 - 020 - 22/0438 - 2022/01** **SE**

1.) Produkttypens unika identifikationskod:

(033) Injection system EJOT Multifix PSF+ / Sormat ITH-Pe, EJOT Multifix PSF+ Tropical/ Sormat ITH-Te, EJOT Multifix PSF+ Winter

2.) Avsedd användning/avsedda användningar:

Injektionsankare för användning i murverk

3.) Tillverkare:

EJOT SE & Co. KG, MU Construction, In der Stockwiese 35, 57334 Bad Laasphe - Germany

4.) System för bedömning och fortlöpande kontroll av prestanda:

Systen 1

5.)

Europeiskt bedömningsdokument:	**EAD 330076-01-0604**
Europeisk teknisk bedömning:	**ETA-22/0438**
Tekniskt bedömningsorgan:	**TZUS - Technical and Test Institute for Construction**
Anmält/anmälda organ:	**2873 - IFSW - Technische Universität Darmstadt**

6.) Angiven prestanda:

a) Mekanisk motstånd och stabilitet (BWR 1) och säkerhet och tillgänglighet (BWR 4)

Väsentliga egenskaper	Prestanda
Karakteristiska värden för motstånd	Bilaga C 6 till C 40
Förskjutningar	Bilaga C 5 till C 39
Hållbarhet	Se bilaga B1

PRESTANDADEKLARATION

Nr **4 - 020 - 22/0438 - 2022/01** **SE**

EJOT®

b) Säkerhet vid brand (BWR 2)

Väsentliga egenskaper	Prestanda
Reaktion på brand	Förankringarna uppfyller kraven för klass A1

c) Hygien, hälsa och miljö (BWR 3)

Väsentliga egenskaper	Prestanda

d) Skydd mot buller (BWR 5)

Väsentliga egenskaper	Prestanda

e) Energihushållning och värmehållning (BWR 6)

Väsentliga egenskaper	Prestanda

f) Hållbar användning av naturresurser (BWR 7)

Väsentliga egenskaper	Prestanda

Prestandan för ovanstående produkt överensstämmer med den angivna prestandan. Denna prestandadeklaration har utfärdats i enlighet med förordning (EU) nr 305/2011 på eget ansvar av den tillverkare som anges ovan.

Undertecknad på tillverkarens vägnar av:

Dr. Jens Weber
(namn)

Bad Laasphe, 16.09.2022
(Iplats and datum)

(signatur)

VYHLÁSENIE O PARAMETROCH

č. **4 - 020 - 22/0438 - 2022/01** **SK**

1.) Jedinečný identifikačný kód typu výrobku:

(033) Injection system EJOT Multifix PSF+ / Sormat ITH-Pe, EJOT Multifix PSF+ Tropical/ Sormat ITH-Te, EJOT Multifix PSF+ Winter

2.) Zamýšľané použitie/použitia:

Injektážne kotvy na použitie v murive

3.) Výrobca:

EJOT SE & Co. KG, MU Construction, In der Stockwiese 35, 57334 Bad Laasphe - Germany

4.) Systém(-y) posudzovania a overovania nemennosti parametrov:

Systém 1

5.)

Európsky hodnotiaci dokument:	**EAD 330076-01-0604**
Európske technické posúdenie:	**ETA-22/0438**
Orgán technického posudzovania:	**TZUS - Technical and Test Institute for Construction**
Notifikovaný(-é) subjekt(-y):	**2873 - IFSW - Technische Universität Darmstadt**

6.) Deklarované parametre:

a) Mechanická odolnosť a stabilita (BWR 1) a bezpečnosť a dostupnosť (BWR 4)

základné charakteristiky	vlastnosti výrobku
Charakteristické hodnoty pre odpor	Príloha C 6 až C 40
Premiestnenie	Príloha C 5 až C 39
Trvanlivosť	Pozri prílohu B1

VYHLÁSENIE O PARAMETROCH

č. **4 - 020 - 22/0438 - 2022/01** **SK**

EJOT®

b) Bezpečnosť v prípade požiaru (BWR 2)

základné charakteristiky	vlastnosti výrobku
Reakcia na požiar	Kotviace prvky spĺňajú požiadavky pre triedu A1

c) Hygiena, zdravie a životné prostredie (BWR 3)

základné charakteristiky	vlastnosti výrobku

d) Ochrana proti hluku (BWR 5)

základné charakteristiky	vlastnosti výrobku

e) Úspora energie a zadržiavanie tepla (BWR 6)

základné charakteristiky	vlastnosti výrobku

f) Udržateľné využívanie prírodných zdrojov (BWR 7)

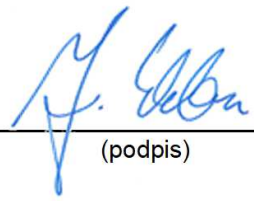
základné charakteristiky	vlastnosti výrobku

Uvedené parametre výrobku sú v zhode so súborom deklarovaných parametrov. Toto vyhlásenie o parametroch sa v súlade s nariadením (EÚ) č. 305/2011 vydáva na výhradnú zodpovednosť uvedeného výrobcu.

Podpísal(-a) za a v mene výrobcu:

Dr. Jens Weber
(meno)

Bad Laasphe, 16.09.2022
(miesto a dátum na výstava)



(podpis)

IZJAVA O LASTNOSTIH

Št. **4 - 020 - 22/0438 - 2022/01** **SLO**

1.) Enotna identifikacijska oznaka tipa proizvoda:

(033) Injection system EJOT Multifix PSF+ / Sormat ITH-Pe, EJOT Multifix PSF+ Tropical/ Sormat ITH-Te, EJOT Multifix PSF+ Winter

2.) Predvidena uporaba:

Injekcijska sidra za uporabo v zidovih

3.) Proizvajalec:

EJOT SE & Co. KG, MU Construction, In der Stockwiese 35, 57334 Bad Laasphe - Germany

4.) Sistemi ocenjevanja in preverjanja nespremenljivosti lastnosti:

Sistem 1

5.)

Evropski ocenjevalni dokument:	**EAD 330076-01-0604**
Evropska tehnična ocena:	**ETA-22/0438**
Organ za tehnično ocenjevanje:	**TZUS - Technical and Test Institute for Construction**
Priglašeni organi:	**2873 - IFSW - Technische Universität Darmstadt**

6.) Navedene lastnosti:

a) Mehanska odpornost in stabilnost (BWR 1) ter varnost in dostopnost (BWR 4)

Glavne značilnosti	Zmogljivost proizvoda
Značilne vrednosti za odpornost	Priloga C 6 do C 40
Premiki	Priloga C 5 do C 39
Trajnost	Glej Prilogo B1

IZJAVA O LASTNOSTIH

Št. **4 - 020 - 22/0438 - 2022/01** **SLO**

EJOT®

b) Varnost v primeru požara (BWR 2)	
Glavne značilnosti	Zmogljivost proizvoda
Odziv na ogenj	Sidrišča izpolnjujejo zahteve za razred A1

c) Higiena, zdravje in okolje (BWR 3) \ t	
Glavne značilnosti	Zmogljivost proizvoda

d) Zaščita pred hrupom (BWR 5) \ t	
Glavne značilnosti	Zmogljivost proizvoda

e) Varčevanje z energijo in ohranjanje toplote (BWR 6) \ t	
Glavne značilnosti	Zmogljivost proizvoda

f) Trajnostna raba naravnih virov (BWR 7) \ t	
Glavne značilnosti	Zmogljivost proizvoda

Lastnosti proizvoda, navedenega zgoraj, so v skladu z navedenimi lastnostmi. Za izdajo te izjave o lastnostih je v skladu z Uredbo (EU) št. 305/2011 odgovoren izključno proizvajalec, naveden zgoraj.

Podpisal za in v imenu proizvajalca:

Dr. Jens Weber
(Ime)

Bad Laasphe, 16.09.2022
(Kraj in datum izstavitve)

(Podpis)

Specifications of intended use

Anchorages subject to:	Static and quasi-static loads M8 to M16 (with and without perforated sleeve)		
Base material	Masonry group b: Masonry group c: Masonry group d:	Solid brick masonry Hollow brick masonry Autoclaved Aerated Concrete	Annex B2 and B3. Annex B2 and B3 Annex B2
	Mortar strength class of the masonry M2,5 at minimum according to EN 998-2:2010. For other bricks in solid masonry and in hollow masonry or in autoclaved aerated concrete, the characteristic resistance of the anchor may be determined by job site tests according to EOTA TR 053, Edition April 2016 under consideration of the β-factor according to Annex C1, Table C1.		
Hole drilling	See Annex C 5 – C 40		
Use category	Condition d/d: Installation and use in dry masonry Condition w/w: Installation and use in dry or wet masonry (incl. w/d installation in wet masonry and use in dry masonry)		
Temperature Range:	T_a: - 40°C to +40°C (max. short term temperature +40°C and max. long term temperature +24°C) T_b: - 40°C to +80°C (max. short term temperature +80°C and max. long term temperature +50°C)		

Use conditions (Environmental conditions):
- Dry and wet structures (regarding injection mortar).
- Structures subject to dry internal conditions (zinc coated steel, stainless steel or high corrosion resistant steel).
- Structures subject to external atmospheric exposure (including industrial and marine environment) and to permanently damp internal condition, if no particular aggressive conditions exist (stainless steel or high corrosion resistant steel).
- Structures subject to external atmospheric exposure and to permanently damp internal condition, if other particular aggressive conditions exist (high corrosion resistant steel).

Note: Particular aggressive conditions are e.g. permanent, alternating immersion in seawater or the splash zone of seawater, chloride atmosphere of indoor swimming pools or atmosphere with extreme chemical pollution (e.g. in desulphurization plants or road tunnels where de-icing materials are used).

Design:
- Verifiable calculation notes and drawings are prepared taking account the relevant masonry in the region of the anchorage, the loads to be transmitted and their transmission to the supports of the structure. The position of the anchor is indicated on the design drawings.
- The anchorages are designed in accordance with the EOTA TR 054, Edition April 2016, Design method A under the responsibility of an engineer experienced in anchorages and masonry work.

Installation:
- Anchor Installation carried out by appropriately qualified personnel and under the supervision of the person responsible for technical matters of the site.

Brick type: Autoclaved Aerated Concrete – AAC2

Table C3: Description

Brick type	Autoclaved Aerated Concrete AAC2
Bulk density [kg/dm³]	0,35
Compressive strength [N/mm²]	2
Code	EN 771-4
Producer (country code)	e.g. Ytong (CZ)
Brick dimensions [mm]	599 x 375 x 249
Drilling method	Rotary drilling

Table C4: Installation parameter (Edge and spacing distances)

Anchor size	Effective anchorage depth	Edge distance	Spacing	Maximum installation torque
	h_{ef}	$c_{min} = c_{cr}$	$s_{cr} = s_{min\,\parallel} = s_{min\,\perp}$	max T_{inst}
	[mm]			[Nm]
M8	80	120	240	2
M10	90	135	270	
M12	100	150	300	
M16	100	150	300	

Table C5: Displacement

h_{ef}	N	δ_{N0}	$\delta_{N\infty}$	V	δ_{V0}	$\delta_{V\infty}$
[mm]	[kN]	[mm]	[mm]	[kN]	[mm]	[mm]
80	$\frac{N_{Rk}}{1,4 \bullet \gamma_M}$	0,29	0,58	$\frac{V_{Rk}}{1,4 \bullet \gamma_M}$	1,23	1,84
90		0,23	0,46		0,87	1,31
100		0,39	0,79		1,29	1,94

Brick type: Autoclaved Aerated Concrete – AAC2

Table C6: Characteristic values of resistance under tension and shear loads

Anchor size	Effective anchorage depth	Characteristic resistance				
		Use category				
		d/d		w/d w/w		d/d w/d w/w
		40°C / 24°C	80°C / 50°C	40°C / 24°C	80°C / 50°C	For all temperature range
	h_{ef}	N_{Rk} [1]	N_{Rk} [1]	N_{Rk} [1]	N_{Rk} [1]	$V_{Rk,b}$ [2]
	[mm]	[kN]				
Compressive strength $f_b \geq 2$ N/mm²						
M8	80	0,9	0,9	0,9	0,9	1,5
M10	90	0,9	0,9	0,9	0,75	2,0
M12	100	1,5	1,5	1,2	0,9	2,5
M16	100	1,5	1,5	1,2	0,9	3,5

[1] For design according TR 054: N_{Rk} = $N_{Rk,p}$ = $N_{Rk,b}$; $N_{Rk,s}$ according to Table C2 Annex C2; Calculation $N_{Rk,pb}$ see TR 054
[2] For $V_{Rk,s}$ see Annex C 2, Table C2; Calculation of $V_{Rk,pb}$ and $V_{Rk,c}$ see TR 054

Brick type: Autoclaved Aerated Concrete AAC4

Table C7: Description

Brick type	Autoclaved Aerated Concrete AAC4
Bulk density [kg/dm³]	0,50
Compressive strength [N/mm²]	4
Code	EN 771-4
Producer (country code)	e.g. Ytong (CZ)
Brick dimensions [mm]	499 x 375 x 249
Drilling method	Rotary drilling

Table C8: Installation parameter (Edge and spacing distances)

Anchor size	Effective anchorage depth	Edge distance	Spacing	Maximum installation torque
	h_{ef}	$c_{min} = c_{cr}$	$s_{cr} = s_{min\,\parallel} = s_{min\,\perp}$	max T_{inst}
	[mm]			[Nm]
M8	80	120	240	2
M10	90	135	270	
M12	100	150	300	
M16	100	150	300	

Table C9: Displacement

h_{ef}	N	δ_{N0}	$\delta_{N\infty}$	V	δ_{V0}	$\delta_{V\infty}$
[mm]	[kN]	[mm]	[mm]	[kN]	[mm]	[mm]
80	$\frac{N_{Rk}}{1,4 \bullet \gamma_M}$	0,23	0,47	$\frac{V_{Rk}}{1,4 \bullet \gamma_M}$	1,23	1,84
90		0,58	1,17		0,87	1,31
100		0,10	0,21		1,29	1,94

Brick type: Autoclaved Aerated Concrete AAC4

Table C10: Characteristic values of resistance under tension and shear loads

Anchor size	Effective anchorage depth	Characteristic resistance				
		Use category				
		d/d		w/d w/w		d/d w/d w/w
		40°C / 24°C	80°C / 50°C	40°C / 24°C	80°C / 50°C	For all temperature range
	h_{ef}	N_{Rk} [1]	N_{Rk} [1]	N_{Rk} [1]	N_{Rk} [1]	$V_{Rk,b}$ [2]
	[mm]	[kN]				
Compressive strength $f_b \geq 4$ N/mm²						
M8	80	0,9	0,9	0,9	0,9	1,5
M10	90	2,5	2,0	1,5	1,5	2,0
M12	100	2,5	2,0	2,0	1,5	2,5
M16	100	3,5	3,0	2,0	2,0	3,5

[1] For design according TR 054: $N_{Rk} = N_{Rk,p} = N_{Rk,b}$; $N_{Rk,s}$ according to Table C2 Annex C2; Calculation $N_{Rk,pb}$ see TR 054
[2] For $V_{Rk,s}$ see Annex C 2, Table C2; Calculation of $V_{Rk,pb}$ and $V_{Rk,c}$ see TR 054

Brick type: Autoclaved Aerated Concrete AAC6

Table C11: Description

Brick type	Autoclaved Aerated Concrete AAC6
Bulk density [kg/dm³]	0,60
Compressive strength [N/mm²]	6
Code	EN 771-4
Producer (country code)	e.g. Porit (DE)
Brick dimensions [mm]	499 x 240 x 249
Drilling method	Rotary drilling

Table C12: Installation parameter (Edge and spacing distances)

Anchor size	Effective anchorage depth	Edge distance	Spacing	Maximum installation torque
	h_{ef}	$c_{min} = c_{cr}$	$s_{cr} = s_{min\,\parallel} = s_{min\,\perp}$	max T_{inst}
	[mm]			[Nm]
M8	80	120	240	2
M10	90	135	270	
M12	100	150	300	
M16	100	150	300	

Table C13: Displacement

h_{ef}	N	δ_{N0}	$\delta_{N\infty}$	V	δ_{V0}	$\delta_{V\infty}$
[mm]	[kN]	[mm]	[mm]	[kN]	[mm]	[mm]
80	$\frac{N_{Rk}}{1,4 \bullet \gamma_M}$	0,54	1,09	$\frac{V_{Rk}}{1,4 \bullet \gamma_M}$	0,32	0,48
90		0,85	1,69		1,49	2,23
100		0,10	0,19		1,67	2,50

Brick type: Autoclaved Aerated Concrete AAC6

Table C14: Characteristic values of resistance under tension and shear loads

Anchor size	Effective anchorage depth	Characteristic resistance				
		Use category				
		d/d		w/d w/w		d/d w/d w/w
		40°C / 24°C	80°C / 50°C	40°C / 24°C	80°C / 50°C	For all temperature range
	h_{ef}	N_{Rk} [1]	N_{Rk} [1]	N_{Rk} [1]	N_{Rk} [1]	$V_{Rk,b}$ [2]
	[mm]	[kN]				
Compressive strength $f_b \geq 6$ N/mm²						
M8	80	2,0	2,0	2,0	2,0	5,5
M10	90	3,0	2,5	2,5	2,0	9,0
M12	100	4,5	3,5	3,0	2,5	9,0
M16	100	5,5	4,5	3,5	3,0	11,0

[1] For design according TR 054: $N_{Rk} = N_{Rk,p} = N_{Rk,b}$; $N_{Rk,s}$ according to Table C2 Annex C2; Calculation $N_{Rk,pb}$ see TR 054
[2] For $V_{Rk,s}$ see Annex C 2, Table C2; Calculation of $V_{Rk,pb}$ and $V_{Rk,c}$ see TR 054

Brick type: Calcium silicate solid brick KS-NF

Table C15: Description

Brick type	Calcium silicate solid brick KS-NF
Bulk density [kg/dm³]	2,0
Compressive strength [N/mm²]	10, 20 or 27
Code	EN 771-2
Producer (country code)	e.g. Wemding (DE)
Brick dimensions [mm]	240 x 115 x 71
Drilling method	Hammer drilling

Table C16: Installation parameter (Edge and spacing distances)

Anchor size	Sleeve	Embedment depth	Edge distance	Spacing	Maximum installation torque
		h_{ef}	$c_{min} = c_{cr}$	$s_{cr} = s_{min\,\parallel} = s_{min\,\perp}$	max T_{inst}
		[mm]			[Nm]
M8	-	80	120	240	10
M10	-	90	135	270	20
M12 / M16	-	100	150	300	
M8	SH 12x80	80	120	240	10
	SH 16x85	85	127	255	
M10	SH 16x85	85	127	255	20
M8 / M10	SH 16x130	130	195	390	
	SH 16x130/330	130	195	390	
M12 / M16	SH 20x85	85	127	255	
	SH 20x130	130	195	390	
	SH 20x200	200	300	600	

Table C17: Displacement

h_{ef}	N	δ_{N0}	$\delta_{N\infty}$	V	δ_{V0}	$\delta_{V\infty}$
[mm]	[kN]	[mm]	[mm]	[kN]	[mm]	[mm]
80	$\frac{N_{Rk}}{1,4 \bullet \gamma_M}$	0,08	0,16	$\frac{V_{Rk}}{1,4 \bullet \gamma_M}$	3,07	4,61
85		0,26	0,52		1,46	2,19
90		0,09	0,18		1,50	2,25
100		0,10	0,20		1,03	1,53
130 ; 200		0,22	0,44		1,16	1,74

Brick type: Calcium silicate solid brick KS-NF

Table C18: Characteristic values of resistance under tension and shear loads

Anchor size	Sleeve	Effective anchorage depth	Characteristic resistance		
			Use category d/d w/d w/w		
			40°C / 24°C	80°C / 50°C	For all temperature range
		h_{ef}	N_{Rk} [1]	N_{Rk} [1]	$V_{Rk,b}$ [2]
		[mm]	[kN]		
Compressive strength $f_b \geq 10$ N/mm²					
M8	-	80	3,0	2,0	3,0
M10	-	90	3,0	2,0	3,0
M12	-	100	4,0	2,5	3,5
M16	-	100	3,0	2,0	3,5
M8	SH 12x80	80	2,5	2,0	2,5
	SH 16x85	85	2,5	2,0	3,0
	SH16x130 / SH16x130/330	130	4,0	2,5	4,0
M10	SH 16x85	85	2,5	2,0	3,0
	SH16x130/330	130	4,5	3,0	4,0
M12 / M16	SH 20x85	85	2,5	2,0	3,0
	SH 20x130 / SH 20x200	130 / 200	4,5	2,5	4,0
Compressive strength $f_b \geq 20$ N/mm²					
M8	-	80	4,5	3,0	4,5
M10	-	90	4,5	3,0	4,5
M12	-	100	5,5	3,5	5,0
M16	-	100	4,5	3,0	5,0
M8	SH 12x80	80	4,0	2,5	4,0
	SH 16x85	85	4,0	2,5	4,5
	SH16x130 / SH16x130/330	130	6,0	3,5	5,5
M10	SH 16x85	85	4,0	2,5	4,5
	SH 16x130/330	130	6,0	4,0	5,5
M12 / M16	SH 20x85	85	4,0	2,5	5,0
	SH 20x130 / SH 20x200	130 / 200	6,0	4,0	5,5
Compressive strength $f_b \geq 27$ N/mm²					
M8	-	80	5,5	3,5	5,0
M10	-	90	5,5	3,5	5,5
M12	-	100	6,5	4,5	6,0
M16	-	100	5,5	3,5	6,0
M8	SH 12x80	80	4,5	3,0	4,5
	SH 16x85	85	4,5	3,0	5,5
	SH16x130 / SH16x130/330	130	6,5	4,5	6,5
M10	SH 16x85	85	4,5	3,0	5,5
	SH 16x130/330	130	6,5	4,5	6,5
M12 / M16	SH 20x85	85	4,5	3,0	5,5
	SH 20x130 / SH 20x200	130 / 200	6,5	4,5	6,5

[1] For design according TR 054: $N_{Rk} = N_{Rk,p} = N_{Rk,b}$; $N_{Rk,s}$ according to Table C2 Annex C2; Calculation $N_{Rk,pb}$ see TR 054

[2] For $V_{Rk,s}$ see Annex C 2, Table C2; Calculation of $V_{Rk,pb}$ and $V_{Rk,c}$ see TR 054

Injection system EJOT Multifix PSF+ / Sormat ITH-Pe for masonry	
Performance Calcium solid brick KS-NF Characteristic values of resistance under tension and shear load	**Annex C 12**

Brick type: Calcium silicate hollow brick KS L-3DF

Table C19: Description

Brick type	Calcium silicate hollow brick KS L-3DF	
Bulk density [kg/dm³]	1,4	
Compressive strength [N/mm²]	8, 12 or 14	
Code	EN 771-2	
Producer (country code)	e.g. Wemding (DE)	
Brick dimensions [mm]	240 x 175 x 113	
Drilling method	Rotary drilling	

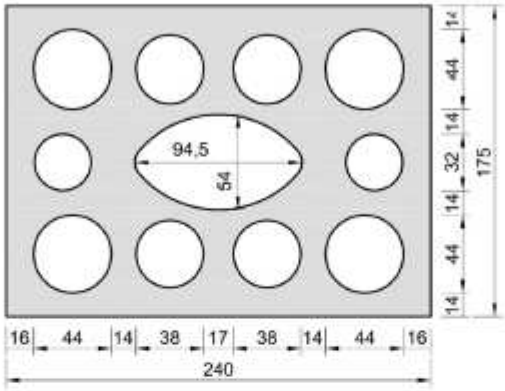


Table C20: Installation parameter (Edge and spacing distances)

Anchor size	Sleeve	Embedment depth	Edge distance	Spacing		Maximum installation torque
		h_{ef}	$c_{min} = c_{cr}$	$s_{cr} = s_{min\,\parallel}$	$s_{min\,\perp}$	max T_{inst}
		[mm]				[Nm]
M8	SH 12x80	80	100	240	113	8
M8 / M10	SH 16x85	85				
	SH 16x130	130				
	SH 16x130/330	130				
M12 / M16	SH 20x85	85	120			
	SH 20x130	130				
	SH 20x200	200				

Table C21: Displacement

h_{ef}	N	δ_{N0}	$\delta_{N\infty}$	V	δ_{V0}	$\delta_{V\infty}$
[mm]	[kN]	[mm]	[mm]	[kN]	[mm]	[mm]
80	$\frac{N_{Rk}}{1,4 \bullet \gamma_M}$	0,36	0,73	$\frac{V_{Rk}}{1,4 \bullet \gamma_M}$	0,82	1,23
85		1,62	3,24		1,83	2,75
130 ; 200		1,70	3,40		1,98	2,98

Brick type: Calcium silicate hollow brick KS L-3DF

Table C22: Characteristic values of resistance under tension and shear loads

Anchor size	Sleeve	Effective anchorage depth	Characteristic resistance		
			Use category d/d w/d w/w		
			40°C / 24°C	80°C / 50°C	For all temperature range
		h_{ef}	N_{Rk} [1]	N_{Rk} [1]	$V_{Rk,b}$ [2]
		[mm]	[kN]		
Compressive strength $f_b \geq 8$ N/mm²					
M8	SH 12x80	80	1,5	0,9	2,0
	SH 16x85	85	1,5	0,9	2,5
	SH 16x130	130	2,5	1,5	3,0
	SH 16x130/330	130	2,5	1,5	3,0
M10	SH 16x85	85	1,5	0,9	2,5
	SH 16x130	130	2,5	1,5	3,0
	SH 16x130/330	130	2,5	1,5	3,0
M12	SH 20x85	85	1,5	0,9	3,0
	SH 20x130 / SH 20x200	130 / 200	2,5	1,5	3,0
M16	SH 20x85	85	1,5	0,9	3,0
	SH 20x130 / SH 20x200	130 / 200	2,5	1,5	4,0
Compressive strength $f_b \geq 12$ N/mm²					
M8	SH 12x80	80	2,0	1,2	2,5
	SH 16x85	85	2,0	1,2	3,5
	SH 16x130	130	3,5	2,0	4,5
	SH 16x130/330	130	3,5	2,0	4,5
M10	SH 16x85	85	2,0	1,2	3,5
	SH 16x130	130	3,5	2,0	4,5
	SH 16x130/330	130	3,5	2,0	4,5
M12	SH 20x85	85	2,0	1,2	3,5
	SH 20x130 / SH 20x200	130 / 200	3,5	2,0	4,5
M16	SH 20x85	85	2,0	1,2	3,5
	SH 20x130 / SH 20x200	130 / 200	3,5	2,0	5,0
Compressive strength $f_b \geq 14$ N/mm²					
M8	SH 12x80	80	2,5	1,5	3,0
	SH 16x85	85	2,5	1,5	4,0
	SH 16x130	130	4,0	3,0	5,0
	SH 16x130/330	130	4,0	3,0	5,0
M10	SH 16x85	85	2,5	1,5	4,0
	SH 16x130	130	4,0	3,0	5,0
	SH 16x130/330	130	4,0	3,0	5,0
M12	SH 20x85	85	2,5	1,5	4,5
	SH 20x130 / SH 20x200	130 / 200	4,0	3,0	5,0
M16	SH 20x85	85	2,5	1,5	4,5
	SH 20x130 / SH 20x200	130 / 200	4,0	3,0	6,0

[1] For design according TR 054: $N_{Rk} = N_{Rk,p} = N_{Rk,b}$; $N_{Rk,s}$ according to Table C2 Annex C2; Calculation $N_{Rk,pb}$ see TR 054

[2] For $V_{Rk,s}$ see Annex C 2, Table C2; Calculation of $V_{Rk,pb}$ and $V_{Rk,c}$ see TR 054

Brick type: Calcium silicate hollow brick KS L-12DF

Table C23: Description

Brick type	Calcium silicate hollow brick KS L-12DF
Bulk density [kg/dm³]	1,40
Compressive strength [N/mm²]	10, 12 or 16
Code	EN 771-2
Producer (country code)	e.g. Wemding (DE)
Brick dimensions [mm]	498 x 175 x 238
Drilling method	Rotary drilling

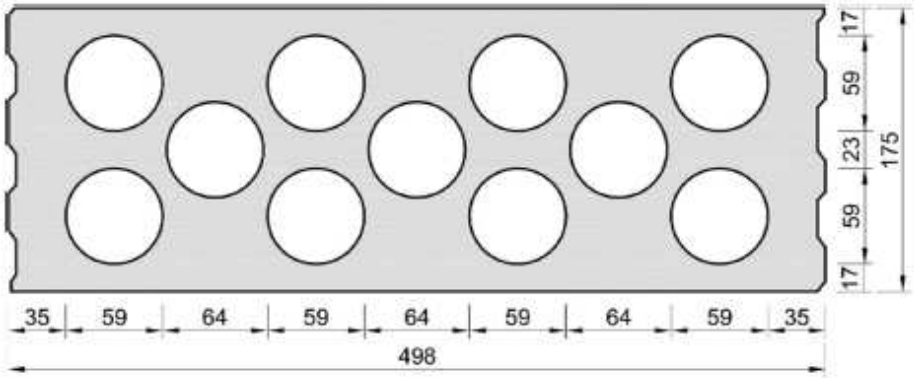


Table C24: Installation parameter (Edge and spacing distances)

Anchor size	Sleeve	Embedment depth	Edge distance	Spacing		Maximum installation torque
		h_{ef}	$c_{min} = c_{cr}$	$s_{cr} = s_{min\,\parallel}$	$s_{min\,\perp}$	max T_{inst}
		[mm]				[Nm]
M8	SH 12x80	80	100	498	238	2
M8 / M10	SH 16x85	85				4
	SH 16x130	130				
	SH 16x130/330	130				
M12 / M16	SH 20x85	85	120			
	SH 20x130	130				

Table C25: Displacement

h_{ef}	N	δ_{N0}	$\delta_{N\infty}$	V	δ_{V0}	$\delta_{V\infty}$
[mm]	[kN]	[mm]	[mm]	[kN]	[mm]	[mm]
80	$\frac{N_{Rk}}{1,4 \bullet \gamma_M}$	0,21	0,42	$\frac{V_{Rk}}{1,4 \bullet \gamma_M}$	1,77	2,66
85		0,13	0,26		3,89	5,83
130		0,22	0,44		4,35	6,52

Brick type: Calcium silicate hollow brick KS L-12DF

Table C26: Characteristic values of resistance under tension and shear loads

Anchor size	Sleeve	Effective anchorage depth	Characteristic resistance		
			Use category d/d w/d w/w		
			40°C / 24°C	80°C / 50°C	For all temperature range
		h_{ef}	N_{Rk} [1]	N_{Rk} [1]	$V_{Rk,b}$ [2]
		[mm]	[kN]		
Compressive strength $f_b \geq 10$ N/mm²					
M8	SH 12x80	80	0,4	0,3	3,0
	SH 16x85	85	1,2	0,9	6,0
	SH 16x130	130	3,5	2,5	7,0
	SH 16x130/330	130	3,5	2,5	7,0
M10	SH 16x85	85	1,2	0,9	6,0
	SH 16x130	130	3,5	2,5	7,0
	SH 16x130/330	130	3,5	2,5	7,0
M12 / M16	SH 20x85	85	1,2	0,9	6,0
	SH 20x130 / SH 20x200	130 / 200	3,5	2,5	7,0
Compressive strength $f_b \geq 12$ N/mm²					
M8	SH 12x80	80	0,4	0,3	3,5
	SH 16x85	85	1,5	0,9	7,0
	SH 16x130	130	4,5	3,0	8,0
	SH 16x130/330	130	4,5	3,0	8,0
M10	SH 16x85	85	1,5	0,9	7,0
	SH 16x130	130	4,5	3,0	8,0
	SH 16x130/330	130	4,5	3,0	8,0
M12 / M16	SH 20x85	85	1,5	0,9	7,0
	SH 20x130 / SH 20x200	130 / 200	4,5	3,0	8,0
Compressive strength $f_b \geq 16$ N/mm²					
M8	SH 12x80	80	0,5	0,4	4,0
	SH 16x85	85	2,0	1,2	9,0
	SH 16x130	130	5,5	3,5	10,0
	SH 16x130/330	130	5,5	3,5	10,0
M10	SH 16x85	85	2,0	1,2	9,0
	SH 16x130	130	5,5	3,5	10,0
	SH 16x130/330	130	5,5	3,5	10,0
M12 / M16	SH 20x85	85	2,0	1,2	8,5
	SH 20x130 / SH 20x200	130 / 200	5,5	3,5	10,0

[1] For design according TR 054: $N_{Rk} = N_{Rk,p} = N_{Rk,b}$; $N_{Rk,s}$ according to Table C2 Annex C2; Calculation $N_{Rk,pb}$ see TR 054
[2] For $V_{Rk,s}$ see Annex C 2, Table C2; Calculation of $V_{Rk,pb}$ and $V_{Rk,c}$ see TR 054

Brick type: Clay solid brick Mz-DF

Table C27: Description

Brick type	Clay solid brick Mz-DF	
Bulk density [kg/dm³]	1,64	
Compressive strength [N/mm²]	10, 20 or 28	
Code	EN 771-1	
Producer (country code)	e.g. Unipor (DE)	
Brick dimensions [mm]	240 x 115 x 55	
Drilling method	Hammer drilling	

Table C28: Installation parameter (Edge and spacing distances)

Anchor size	Sleeve	Embedment depth	Edge distance	Spacing	Maximum installation torque
		h_{ef}	$c_{min} = c_{cr}$	$s_{cr} = s_{min\,\parallel} = s_{min\,\perp}$	max T_{inst}
		[mm]			[Nm]
M8	-	80	120	240	6
	SH 12x80	80	120	240	
	SH 16x85	85	127	255	
M10	-	90	135	270	10
M12 / M16	-	100	150	300	
M10	SH 16x85	85	127	255	8
	SH 16x130	130	195	390	
	SH 16x130/330	130	195	390	
M12 / M16	SH 20x85	85	127	255	
	SH 20x130	130	195	390	
	SH 20x200	200	300	600	

Table C29: Displacement

h_{ef}	N	δ_{N0}	$\delta_{N\infty}$	V	δ_{V0}	$\delta_{V\infty}$
[mm]	[kN]	[mm]	[mm]	[kN]	[mm]	[mm]
80	$\frac{N_{Rk}}{1,4 \bullet \gamma_M}$	0,12	0,24	$\frac{V_{Rk}}{1,4 \bullet \gamma_M}$	2,27	3,41
85		0,13	0,26		1,22	1,83
90		0,06	0,13		0,71	1,06
100		0,18	0,35		0,43	0,64
130 ; 200		0,42	0,85		1,22	1,83

Brick type: Clay solid brick Mz-DF

Table C30: Characteristic values of resistance under tension and shear loads

Anchor size	Sleeve	Effective anchorage depth	Characteristic resistance		
			Use category d/d w/d w/w		
			40°C / 24°C	80°C / 50°C	For all temperature range
		h_{ef}	N_{Rk} [1]	N_{Rk} [1]	$V_{Rk,b}$ [2]
		[mm]	[kN]		
Compressive strength $f_b \geq 10$ N/mm²					
M8	-	80	1,5	1,2	3,0
M10	-	90	1,5	1,2	3,5
M12	-	100	1,5	0,9	5,0
M16	-	100	2,5	1,5	5,0
M8	SH 12x80	80	2,0	1,5	3,0
	SH 16x85	85	2,0	1,5	3,0
	SH 16x130 / SH 16x130/330	130	3,0	2,0	3,0
M10	SH 16x85	85	2,0	1,5	3,5
	SH 16x130 / SH 16x130/330	130	3,0	2,0	3,5
M12 / M16	SH 20x85	85	2,0	1,5	3,5
	SH 20x130 / SH 20x200	130 / 200	3,0	2,0	3,5
Compressive strength $f_b \geq 20$ N/mm²					
M8	-	80	2,5	1,5	4,5
M10	-	90	2,5	1,5	5,5
M12	-	100	2,0	1,5	7,5
M16	-	100	3,5	2,5	7,5
M8	SH 12x80	80	3,0	2,0	4,0
	SH 16x85	85	3,0	2,0	4,5
	SH 16x130 / SH 16x130/330	130	4,0	2,5	4,5
M10	SH 16x85	85	3,0	2,0	5,0
	SH 16x130 / SH 16x130/330	130	4,5	3,0	5,0
M12 / M16	SH 20x85	85	3,0	2,0	5,0
	SH 20x130 / SH 20x200	130 / 200	4,5	3,0	5,0
Compressive strength $f_b \geq 28$ N/mm²					
M8	-	80	3,0	2,0	5,5
M10	-	90	3,0	2,0	6,5
M12	-	100	2,5	1,5	9,0
M16	-	100	4,5	3,0	9,0
M8	SH 12x80	80	3,5	2,5	5,0
	SH 16x85	85	3,5	2,5	5,0
	SH 16x130 / SH 16x130/330	130	5,0	3,5	5,0
M10	SH 16x85	85	3,5	2,5	6,0
	SH 16x130 / SH 16x130/330	130	5,0	3,5	6,0
M12 / M16	SH 20x85	85	3,5	2,5	6,0
	SH 20x130 / SH 20x200	130 / 200	5,0	3,5	6,0

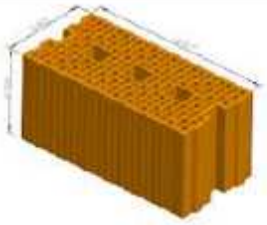
[1] For design according TR 054: $N_{Rk} = N_{Rk,p} = N_{Rk,b}$; $N_{Rk,s}$ according to Table C2 Annex C2; Calculation $N_{Rk,pb}$ see TR 054

[2] For $V_{Rk,s}$ see Annex C 2, Table C2; Calculation of $V_{Rk,pb}$ and $V_{Rk,c}$ see TR 054

Brick type: Clay hollow brick HLz-16DF

Table C31: Description

Brick type	Clay hollow brick HLz-16DF
Bulk density [kg/dm³]	0,83
Compressive strength [N/mm²]	6, 9, 12 or 14
Code	EN 771-1
Producer (country code)	e.g. Unipor (DE)
Brick dimensions [mm]	497 x 238 x 240
Drilling method	Rotary drilling



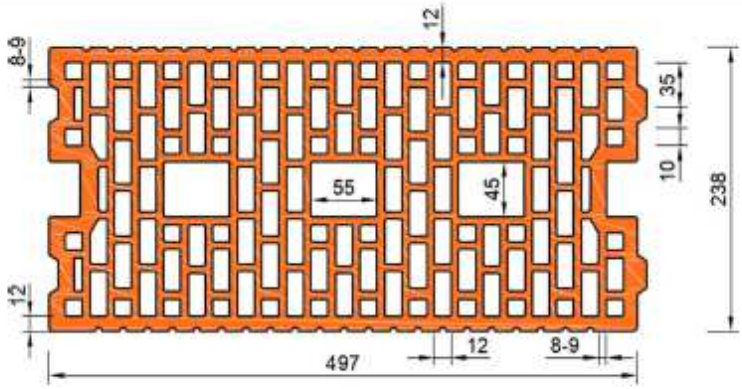


Table C32: Installation parameter (Edge and spacing distances)

Anchor size	Sleeve	Embedment depth	Edge distance	Spacing		Maximum installation torque
		h_{ef}	$c_{min} = c_{cr}$	$s_{cr} = s_{min\,\parallel}$	$s_{min\,\perp}$	max T_{inst}
		[mm]				[Nm]
M8	SH 12x80	80	100	497	238	6
M8 / M10	SH 16x85	85				
	SH 16x130	130				
	SH 16x130/330	130				
M12 / M16	SH 20x85	85	120			
	SH 20x130	130				
	SH 20x200	200				

Table C33: Displacement

h_{ef}	N	δ_{N0}	$\delta_{N\infty}$	V	δ_{V0}	$\delta_{V\infty}$
[mm]	[kN]	[mm]	[mm]	[kN]	[mm]	[mm]
80	$\frac{N_{Rk}}{1,4 \bullet \gamma_M}$	0,27	0,55	$\frac{V_{Rk}}{1,4 \bullet \gamma_M}$	1,02	1,53
85		0,55	1,10		2,14	3,22
130 ; 200		0,19	0,38		2,26	3,39

Brick type: Clay hollow brick HLz-16DF

Table C34: Characteristic values of resistance under tension and shear loads

Anchor size	Sleeve	Effective anchorage depth	Characteristic resistance		
			Use category d/d w/d w/w		
			40°C / 24°C	80°C / 50°C	For all temperature range
		h_{ef}	N_{Rk} [1]	N_{Rk} [1]	$V_{Rk,b}$ [2]
		[mm]	[kN]		
Compressive strength $f_b \geq 6$ N/mm²					
M8	SH 12x80	80	1,2	0,75	2,5
	SH 16x85	85	1,5	1,2	4,0
	SH 16x130	130	2,5	1,5	4,0
	SH 16x130/330	130	2,5	1,5	4,0
M10	SH 16x85	85	1,5	1,2	4,0
	SH 16x130	130	2,5	1,5	6,0
	SH 16x130/330	130	2,5	1,5	6,0
M12 / M16	SH 20x85	85	2,0	1,5	4,0
	SH 20x130 / SH 20x200	130/ 200	2,5	1,5	6,0
Compressive strength $f_b \geq 9$ N/mm²					
M8	SH 12x80	80	1,2	0,9	3,0
	SH 16x85	85	2,0	1,5	4,5
	SH 16x130	130	3,0	2,0	5,0
	SH 16x130/330	130	3,0	2,0	5,0
M10	SH 16x85	85	2,0	1,5	5,0
	SH 16x130	130	3,0	2,0	7,0
	SH 16x130/330	130	3,0	2,0	7,0
M12 / M16	SH 20x85	85	2,5	2,0	5,0
	SH 20x130 / SH 20x200	130/ 200	3,0	2,0	7,0
Compressive strength $f_b \geq 12$ N/mm²					
M8	SH 12x80	80	1,5	1,2	3,5
	SH 16x85	85	2,5	1,5	5,5
	SH 16x130	130	3,5	2,5	6,0
	SH 16x130/330	130	3,5	2,5	6,0
M10	SH 16x85	85	2,5	1,5	6,0
	SH 16x130	130	3,5	2,5	8,0
	SH 16x130/330	130	3,5	2,5	8,0
M12 / M16	SH 20x85	85	3,5	2,0	6,0
	SH 20x130 / SH 20x200	130/ 200	3,5	2,5	8,0
Compressive strength $f_b \geq 14$ N/mm²					
M8	SH 12x80	80	1,5	1,2	4,0
	SH 16x85	85	2,5	2,0	6,0
	SH 16x130	130	3,5	2,5	6,5
	SH 16x130/330	130	3,5	2,5	6,5
M10	SH 16x85	85	2,5	2,0	6,0
	SH 16x130	130	3,5	2,5	9,0
	SH 16x130/330	130	3,5	2,5	9,0
M12 / M16	SH 20x85	85	3,5	2,0	6,0
	SH 20x130 / SH 20x200	130/ 200	3,5	2,5	9,0

[1] For design according TR 054: $N_{Rk} = N_{Rk,p} = N_{Rk,b}$; $N_{Rk,s}$ according to Table C2 Annex C2; Calculation $N_{Rk,pb}$ see TR 054

[2] For $V_{Rk,s}$ see Annex C 2, Table C2; Calculation of $V_{Rk,pb}$ and $V_{Rk,c}$ see TR 054

Injection system EJOT Multifix PSF+ / Sormat ITH-Pe for masonry	**Annex C 20**
Performance Clay hollow brick HLz-16DF Characteristic values of resistance under tension and shear load	

Brick type: Clay hollow brick Porotherm Homebric

Table C35: Description

Brick type	Clay hollow brick Porotherm Homebric
Bulk density [kg/dm³]	0,68
Compressive strength [N/mm²]	6, 8 or 10
Code	EN 771-1
Producer (country code)	e.g. Wienerberger (FR)
Brick dimensions [mm]	500 x 200 x 299
Drilling method	Rotary drilling

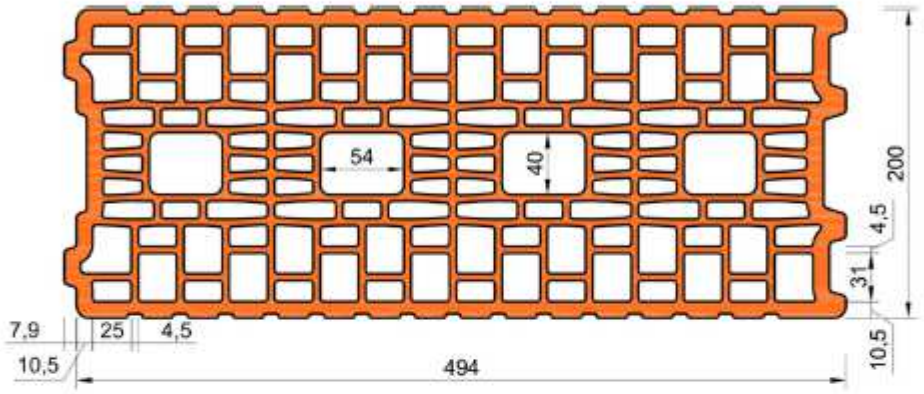


Table C36: Installation parameter (Edge and spacing distances)

Anchor size	Sleeve	Embedment depth	Edge distance	Spacing		Maximum installation torque
		h_{ef}	$c_{min} = c_{cr}$	$s_{cr} = s_{min\,\parallel}$	$s_{min\,\perp}$	max T_{inst}
		[mm]				[Nm]
M8	SH 12x80	80	100	500	299	2
M8 / M10	SH 16x85	85				6
	SH 16x130	130				
	SH 16x130/330	130				
M12 / M16	SH 20x85	85	120			
	SH 20x130	130				

Table C37: Displacement

h_{ef}	N	δ_{N0}	$\delta_{N\infty}$	V	δ_{V0}	$\delta_{V\infty}$
[mm]	[kN]	[mm]	[mm]	[kN]	[mm]	[mm]
80	$\frac{N_{Rk}}{1,4 \bullet \gamma_M}$	0,65	1,29	$\frac{V_{Rk}}{1,4 \bullet \gamma_M}$	1,26	1,89
85		0,52	1,04		1,89	2,84
130		0,45	0,90		1,48	2,23

Brick type: Clay hollow brick Porotherm Homebric

Table C38: Characteristic values of resistance under tension and shear loads

Anchor size	Sleeve	Effective anchorage depth	Characteristic resistance		
			Use category d/d w/d w/w		
			40°C / 24°C	80°C / 50°C	For all temperature range
		h_{ef}	N_{Rk} [1]	N_{Rk} [1]	$V_{Rk,b}$ [2]
		[mm]	[kN]		
Compressive strength $f_b \geq 6$ N/mm²					
M8	SH 12x80	80	0,9	0,75	2,0
	SH 16x85	85	1,2	0,75	2,0
	SH 16x130	130	1,5	0,9	2,5
	SH 16x130/330	130	1,5	0,9	2,5
M10	SH 16x85	85	1,2	0,75	2,0
	SH 16x130	130	1,5	0,9	2,5
	SH 16x130/330	130	1,5	0,9	2,5
M12	SH 20x85	85	1,2	0,75	3,0
	SH 20x130	130	1,5	0,9	3,0
M16	SH 20x85	85	1,2	0,75	3,0
	SH 20x130	130	1,5	0,9	3,0
Compressive strength $f_b \geq 8$ N/mm²					
M8	SH 12x80	80	1,2	0,9	2,5
	SH 16x85	85	1,2	0,9	2,5
	SH 16x130	130	1,5	1,2	3,0
	SH 16x130/330	130	1,5	1,2	3,0
M10	SH 16x85	85	1,2	0,9	2,5
	SH 16x130	130	1,5	1,2	3,0
	SH 16x130/330	130	1,5	1,2	3,0
M12	SH 20x85	85	1,2	0,9	3,5
	SH 20x130	130	1,5	1,2	3,5
M16	SH 20x85	85	1,2	0,9	3,5
	SH 20x130	130	1,5	1,2	3,5
Compressive strength $f_b \geq 10$ N/mm²					
M8	SH 12x80	80	1,2	0,9	3,0
	SH 16x85	85	1,5	0,9	3,0
	SH 16x130	130	2,0	1,2	3,5
	SH 16x130/330	130	2,0	1,2	3,5
M10	SH 16x85	85	1,5	0,9	3,0
	SH 16x130	130	2,0	1,2	3,5
	SH 16x130/330	130	2,0	1,2	3,5
M12	SH 20x85	85	1,5	0,9	4,0
	SH 20x130	130	2,0	1,2	4,0
M16	SH 20x85	85	1,5	0,9	4,0
	SH 20x130	130	2,0	1,2	4,0

[1] For design according TR 054: $N_{Rk} = N_{Rk,p} = N_{Rk,b}$; $N_{Rk,s}$ according to Table C2 Annex C2; Calculation $N_{Rk,pb}$ see TR 054

[2] For $V_{Rk,s}$ see Annex C 2, Table C2; Calculation of $V_{Rk,pb}$ and $V_{Rk,c}$ see TR 054

Injection system EJOT Multifix PSF+ / Sormat ITH-Pe for masonry	Annex C 22
Performance Clay hollow brick Porotherm Homebric Characteristic values of resistance under tension and shear load	

Brick type: Clay hollow brick BGV Thermo

Table C39: Description

Brick type	Clay hollow brick BGV Thermo
Bulk density [kg/dm³]	0,62
Compressive strength [N/mm²]	4, 6 or 10
Code	EN 771-1
Producer (country code)	e.g. Leroux (FR)
Brick dimensions [mm]	500 x 200 x 314
Drilling method	Rotary drilling

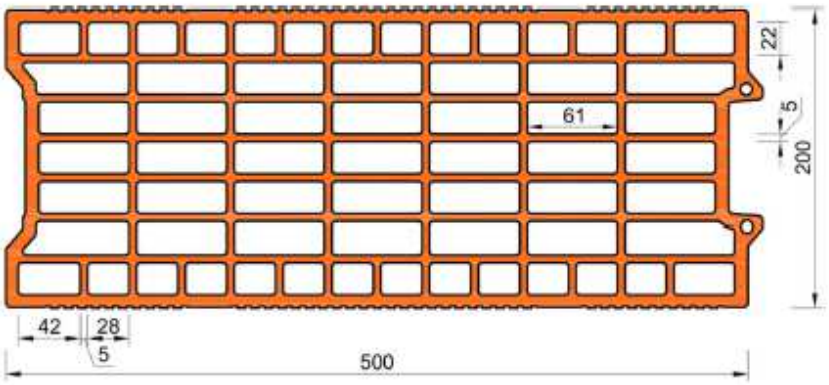


Table C40: Installation parameter (Edge and spacing distances)

Anchor size	Sleeve	Embedment depth	Edge distance	Spacing		Maximum installation torque
		h_{ef}	$c_{min} = c_{cr}$	$s_{cr} = s_{min\,\parallel}$	$s_{min\,\perp}$	max T_{inst}
		[mm]				[Nm]
M8	SH 12x80	80	100	500	314	2
M8 / M10	SH 16x85	85				4
	SH 16x130	130				
	SH 16x130/330	130				
M12 / M16	SH 20x85	85	120			
	SH 20x130	130				

Table C41: Displacement

h_{ef}	N	δ_{N0}	$\delta_{N\infty}$	V	δ_{V0}	$\delta_{V\infty}$
[mm]	[kN]	[mm]	[mm]	[kN]	[mm]	[mm]
80	$\frac{N_{Rk}}{1,4 \bullet \gamma_M}$	0,27	0,54	$\frac{V_{Rk}}{1,4 \bullet \gamma_M}$	1,21	1,81
85		0,39	0,77		2,00	3,01
130		0,16	0,32		1,60	2,39

Brick type: Clay hollow brick BGV Thermo

Table C42: Characteristic values of resistance under tension and shear loads

Anchor size	Sleeve	Effective anchorage depth	Characteristic resistance		
			Use category d/d w/d w/w		
			40°C / 24°C	80°C / 50°C	For all temperature range
		h_{ef}	N_{Rk} [1]	N_{Rk} [1]	$V_{Rk,b}$ [2]
		[mm]	[kN]		
Compressive strength $f_b \geq 4$ N/mm²					
M8	SH 12x80	80	0,5	0,4	2,0
	SH 16x85	85	0,75	0,5	2,0
	SH 16x130	130	0,9	0,75	2,5
	SH 16x130/330	130	0,9	0,75	2,5
M10	SH 16x85	85	0,75	0,5	2,0
	SH 16x130	130	1,2	0,75	2,5
	SH 16x130/330	130	1,2	0,75	2,5
M12	SH 20x85	85	0,75	0,5	2,0
	SH 20x130	130	1,2	0,75	2,5
M16	SH 20x85	85	0,9	0,6	2,0
	SH 20x130	130	1,2	0,75	2,5
Compressive strength $f_b \geq 6$ N/mm²					
M8	SH 12x80	80	0,6	0,5	2,0
	SH 16x85	85	0,9	0,6	2,5
	SH 16x130	130	1,2	0,9	3,0
	SH 16x130/330	130	1,2	0,9	3,0
M10	SH 16x85	85	0,9	0,6	2,5
	SH 16x130	130	1,5	0,9	3,0
	SH 16x130/330	130	1,5	0,9	3,0
M12	SH 20x85	85	0,9	0,6	3,0
	SH 20x130	130	1,5	0,9	3,0
M16	SH 20x85	85	1,2	0,75	3,0
	SH 20x130	130	1,5	0,9	3,0
Compressive strength $f_b \geq 10$ N/mm²					
M8	SH 12x80	80	0,9	0,6	3,0
	SH 16x85	85	1,2	0,9	3,5
	SH 16x130	130	1,5	1,2	4,0
	SH 16x130/330	130	1,5	1,2	4,0
M10	SH 16x85	85	1,2	0,9	3,5
	SH 16x130	130	1,5	1,2	4,0
	SH 16x130/330	130	1,5	1,2	4,0
M12	SH 20x85	85	1,2	0,75	3,5
	SH 20x130	130	1,5	1,2	4,0
M16	SH 20x85	85	1,5	0,9	3,5
	SH 20x130	130	1,5	1,2	4,0

[1] For design according TR 054: $N_{Rk} = N_{Rk,p} = N_{Rk,b}$; $N_{Rk,a}$ according to Table C2 Annex C2; Calculation $N_{Rk,pb}$ see TR 054

[2] For $V_{Rk,a}$ see Annex C 2, Table C2; Calculation of $V_{Rk,pb}$ and $V_{Rk,c}$ see TR 054

Brick type: Clay hollow brick Calibric Th

Table C43: Description

Brick type	Clay hollow brick Calibric Th
Bulk density [kg/dm³]	0,62
Compressive strength [N/mm²]	6, 9 or 12
Code	EN 771-1
Producer (country code)	e.g. Terreal (FR)
Brick dimensions [mm]	500 x 200 x 314
Drilling method	Rotary drilling

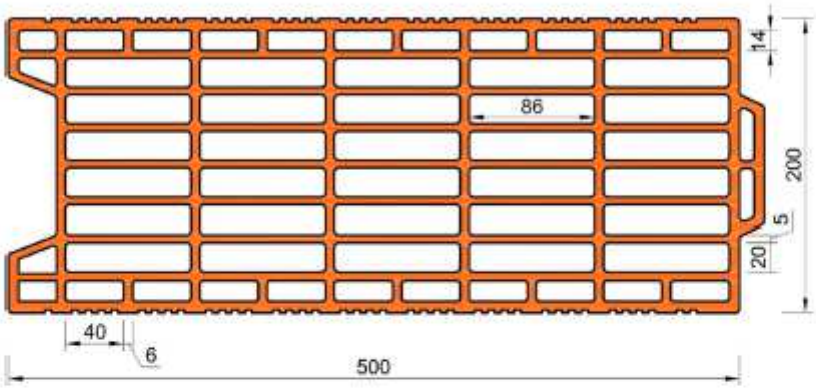


Table C44: Installation parameter (Edge and spacing distances)

Anchor size	Sleeve	Embedment depth	Edge distance	Spacing		Maximum installation torque
		h_{ef}	$c_{min} = c_{cr}$	$s_{cr} = s_{min\,\parallel}$	$s_{min\,\perp}$	max T_{inst}
		[mm]				[Nm]
M8	SH 12x80	80	100	500	314	2
M8 / M10	SH 16x85	85				
	SH 16x130	130				
	SH 16x130/330	130				
M12 / M16	SH 20x85	85	120			
	SH 20x130	130				

Table C45: Displacement

h_{ef}	N	δ_{N0}	$\delta_{N\infty}$	V	δ_{V0}	$\delta_{V\infty}$
[mm]	[kN]	[mm]	[mm]	[kN]	[mm]	[mm]
80	$\frac{N_{Rk}}{1,4 \bullet \gamma_M}$	0,48	0,96	$\frac{V_{Rk}}{1,4 \bullet \gamma_M}$	1,18	1,78
85		0,49	0,98		2,20	3,30
130		0,37	0,74		2,31	3,46

Brick type: Clay hollow brick Calibric Th

Table C46: Characteristic values of resistance under tension and shear loads

Anchor size	Sleeve	Effective anchorage depth	Characteristic resistance		
			Use category d/d w/d w/w		
			40°C / 24°C	80°C / 50°C	For all temperature range
		h_{ef}	N_{Rk} [1]	N_{Rk} [1]	$V_{Rk,b}$ [2]
		[mm]	[kN]		
Compressive strength $f_b \geq 6$ N/mm²					
M8	SH 12x80	80	0,75	0,5	2,5
	SH 16x85	85	0,75	0,5	3,5
	SH 16x130	130	0,9	0,6	3,5
	SH 16x130/330	130	0,9	0,6	3,5
M10	SH 16x85	85	0,75	0,5	3,5
	SH 16x130	130	0,9	0,6	3,5
	SH 16x130/330	130	0,9	0,6	3,5
M12	SH 20x85	85	0,75	0,5	6,0
	SH 20x130	130	0,9	0,6	6,0
M16	SH 20x85	85	1,2	0,75	6,0
	SH 20x130	130	1,2	0,75	6,0
Compressive strength $f_b \geq 9$ N/mm²					
M8	SH 12x80	80	0,9	0,6	3,5
	SH 16x85	85	0,9	0,6	4,5
	SH 16x130	130	1,2	0,75	4,5
	SH 16x130/330	130	1,2	0,75	4,5
M10	SH 16x85	85	0,9	0,6	4,5
	SH 16x130	130	1,2	0,9	4,5
	SH 16x130/330	130	1,2	0,9	4,5
M12	SH 20x85	85	0,9	0,6	7,5
	SH 20x130	130	1,2	0,9	7,5
M16	SH 20x85	85	1,5	0,9	7,5
	SH 20x130	130	1,5	0,9	7,5
Compressive strength $f_b \geq 12$ N/mm²					
M8	SH 12x80	80	0,9	0,75	4,0
	SH 16x85	85	0,9	0,75	5,5
	SH 16x130	130	1,2	0,9	5,5
	SH 16x130/330	130	1,2	0,9	5,5
M10	SH 16x85	85	0,9	0,75	5,5
	SH 16x130	130	1,5	0,9	5,5
	SH 16x130/330	130	1,5	0,9	5,5
M12	SH 20x85	85	0,9	0,75	8,5
	SH 20x130	130	1,5	0,9	8,5
M16	SH 20x85	85	1,5	1,2	8,5
	SH 20x130	130	1,5	1,2	8,5

[1] For design according TR 054: $N_{Rk} = N_{Rk,p} = N_{Rk,b}$; $N_{Rk,s}$ according to Table C2 Annex C2; Calculation $N_{Rk,pb}$ see TR 054
[2] For $V_{Rk,s}$ see Annex C 2, Table C2; Calculation of $V_{Rk,pb}$ and $V_{Rk,c}$ see TR 054

Brick type: Clay hollow brick Urbanbric

Table C47: Description

Brick type	Clay hollow brick Urbanbric
Bulk density [kg/dm³]	0,74
Compressive strength [N/mm²]	6 or 9
Code	EN 771-1
Producer (country code)	e.g. Imerys (FR)
Brick dimensions [mm]	560 x 200 x 274
Drilling method	Rotary drilling

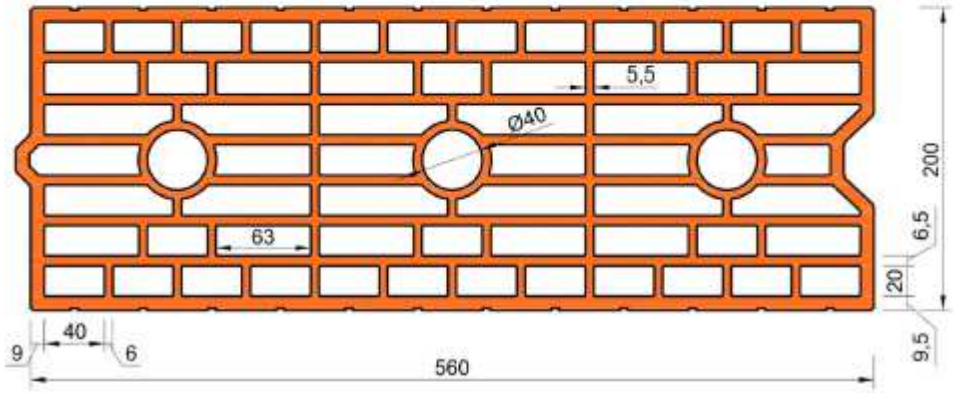


Table C48: Installation parameter (Edge and spacing distances)

Anchor size	Sleeve	Embedment depth	Edge distance	Spacing		Maximum installation torque
		h_{ef}	$c_{min} = c_{cr}$	$s_{cr} = s_{min\,\parallel}$	$s_{min\,\perp}$	max T_{inst}
		[mm]				[Nm]
M8	SH 12x80	80	100	560	274	2
M8 / M10	SH 16x85	85				
	SH 16x130	130				
	SH 16x130/330	130				
M12 / M16	SH 20x85	85	120			
	SH 20x130	130				

Table C49: Displacement

h_{ef}	N	δ_{N0}	$\delta_{N\infty}$	V	δ_{V0}	$\delta_{V\infty}$
[mm]	[kN]	[mm]	[mm]	[kN]	[mm]	[mm]
80	$\frac{N_{Rk}}{1,4 \bullet \gamma_M}$	0,34	0,67	$\frac{V_{Rk}}{1,4 \bullet \gamma_M}$	0,71	1,06
85		0,52	1,04		1,37	2,06
130		0,62	1,24		1,62	2,44

Injection system EJOT Multifix PSF+ / Sormat ITH-Pe for masonry	**Annex C 27**
Performance Clay hollow brick Urbanbric Brick description Installation parameters, Displacements	

Brick type: Clay hollow brick Urbanbric

Table C50: Characteristic values of resistance under tension and shear loads

Anchor size	Sleeve	Effective anchorage depth	Characteristic resistance		
			Use category d/d w/d w/w		
			40°C / 24°C	80°C / 50°C	For all temperature range
		h_{ef}	N_{Rk} [1]	N_{Rk} [1]	$V_{Rk,b}$ [2]
		[mm]	[kN]		
Compressive strength $f_b \geq 6$ N/mm²					
M8	SH 12x80	80	0,9	0,75	3,0
M8 / M10	SH 16x85	85	1,2	0,75	3,5
	SH 16x130	130	1,5	1,2	3,5
	SH 16x130/330	130	1,5	1,2	3,5
M12 / M16	SH 20x85	85	1,2	0,75	4,0
	SH 20x130	130	1,5	1,2	4,0
Compressive strength $f_b \geq 9$ N/mm²					
M8	SH 12x80	80	1,2	0,9	3,5
M8 / M10	SH 16x85	85	1,5	0,9	4,0
	SH 16x130	130	2,0	1,5	4,5
	SH 16x130/330	130	2,0	1,5	4,5
M12 / M16	SH 20x85	85	1,5	0,9	5,0
	SH 20x130	130	2,0	1,5	5,0

[1] For design according TR 054: $N_{Rk} = N_{Rk,p} = N_{Rk,b}$; $N_{Rk,s}$ according to Table C2 Annex C2; Calculation $N_{Rk,pb}$ see TR 054

[2] For $V_{Rk,s}$ see Annex C 2, Table C2; Calculation of $V_{Rk,pb}$ and $V_{Rk,c}$ see TR 054

Brick type: Clay hollow brick Blocchi Leggeri

Table C51: Description

Brick type	Clay hollow brick Blocchi Leggeri
Bulk density [kg/dm³]	0,55
Compressive strength [N/mm²]	4, 6 or 8
Code	EN 771-1
Producer (country code)	e.g. Wienerberger (IT)
Brick dimensions [mm]	250 x 120 x 250
Drilling method	Rotary drilling

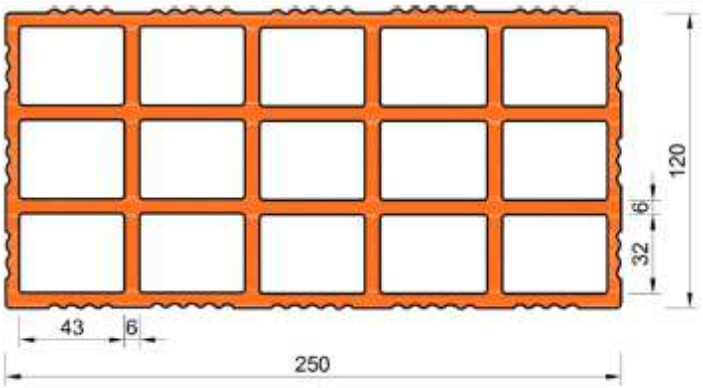


Table C52: Installation parameter (Edge and spacing distances)

Anchor size	Sleeve	Embedment depth	Edge distance	Spacing		Maximum installation torque
		h_{ef}	$c_{min} = c_{cr}$	$s_{cr} = s_{min\,II}$	$s_{min\,\perp}$	max T_{inst}
		[mm]				[Nm]
M8	SH 12x80	80	100	250	250	4
M8 / M10	SH 16x85	85				
	SH 16x130	130				
	SH 16x130/330	130				
M12 / M16	SH 20x85	85	120			
	SH 20x130	130				
	SH 20x200	200				

Table C53: Displacement

h_{ef}	N	δ_{N0}	$\delta_{N\infty}$	V	δ_{V0}	$\delta_{V\infty}$
[mm]	[kN]	[mm]	[mm]	[kN]	[mm]	[mm]
80	$\frac{N_{Rk}}{1,4 \bullet \gamma_M}$	0,32	0,64	$\frac{V_{Rk}}{1,4 \bullet \gamma_M}$	1,16	1,74
85		0,26	0,53		2,52	3,78
130 ; 200		0,32	0,64		2,52	3,78

Brick type: Clay hollow brick Blocchi Leggeri

Table C54: Characteristic values of resistance under tension and shear loads

Anchor size	Sleeve	Effective anchorage depth	Characteristic resistance		
			Use category d/d w/d w/w		
			40°C / 24°C	80°C / 50°C	For all temperature range
		h_{ef}	N_{Rk} [1]	N_{Rk} [1]	$V_{Rk,b}$ [2]
		[mm]	[kN]		
Compressive strength $f_b \geq 4$ N/mm²					
M8	SH 12x80	80	0,4	0,3	2,0
M8 / M10	SH 16x85	85	0,4	0,3	2,0
	SH 16x130	130	0,5	0,3	2,0
	SH 16x130/330	130	0,5	0,3	2,0
M12 / M16	SH 20x85	85	0,4	0,3	2,0
	SH 20x130	130	0,5	0,3	2,0
	SH 20x200	200	0,5	0,3	2,0
Compressive strength $f_b \geq 6$ N/mm²					
M8	SH 12x80	80	0,5	0,3	2,0
M8 / M10	SH 16x85	85	0,5	0,3	2,0
	SH 16x130	130	0,6	0,4	2,0
	SH 16x130/330	130	0,6	0,4	2,0
M12 / M16	SH 20x85	85	0,5	0,3	2,5
	SH 20x130	130	0,6	0,4	2,5
	SH 20x200	200	0,6	0,4	2,5
Compressive strength $f_b \geq 8$ N/mm²					
M8	SH 12x80	80	0,6	0,4	2,5
M8 / M10	SH 16x85	85	0,6	0,4	2,5
	SH 16x130	130	0,6	0,5	2,5
	SH 16x130/330	130	0,6	0,5	2,5
M12 / M16	SH 20x85	85	0,6	0,4	3,0
	SH 20x130	130	0,6	0,5	3,0
	SH 20x200	200	0,6	0,5	3,0

[1] For design according TR 054: $N_{Rk} = N_{Rk,p} = N_{Rk,b}$; $N_{Rk,s}$ according to Table C2 Annex C2; Calculation $N_{Rk,pb}$ see TR 054

[2] For $V_{Rk,s}$ see Annex C 2, Table C2; Calculation of $V_{Rk,pb}$ and $V_{Rk,c}$ see TR 054

Brick type: Clay hollow brick Doppio Uni

Table C55: Description

Brick type	Clay hollow brick Doppio Uni
Bulk density [kg/dm³]	0,92
Compressive strength [N/mm²]	10, 16, 20 or 28
Code	EN 771-1
Producer (country code)	e.g. Wienerberger (IT)
Brick dimensions [mm]	250 x 120 x 120
Drilling method	Rotary drilling

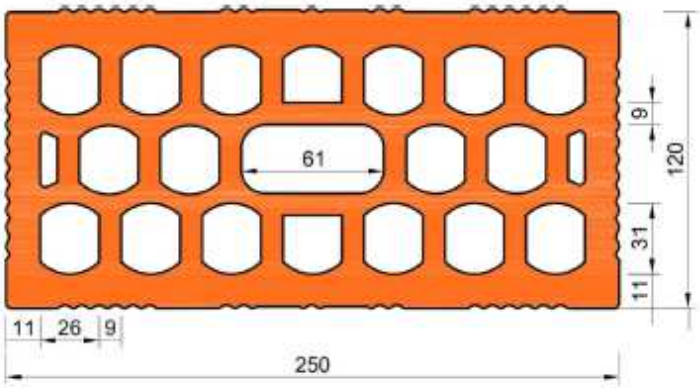


Table C56: Installation parameter (Edge and spacing distances)

Anchor size	Sleeve	Embedment depth	Edge distance	Spacing		Maximum installation torque
		h_{ef}	$c_{min} = c_{cr}$	$s_{cr} = s_{min\,\parallel}$	$s_{min\,\perp}$	max T_{inst}
		[mm]				[Nm]
M8	SH 12x80	80	100	250	120	4
M8 / M10	SH 16x85	85				
	SH 16x130	130				
	SH 16x130/330	130				
M12 / M16	SH 20x85	85	120			
	SH 20x130	130				
	SH 20x200	200				

Table C57: Displacement

h_{ef}	N	δ_{N0}	$\delta_{N\infty}$	V	δ_{V0}	$\delta_{V\infty}$
[mm]	[kN]	[mm]	[mm]	[kN]	[mm]	[mm]
80	$\frac{N_{Rk}}{1,4 \bullet \gamma_M}$	0,54	1,08	$\frac{V_{Rk}}{1,4 \bullet \gamma_M}$	1,63	2,45
85		0,17	0,34		1,75	2,63
130 ; 200		0,54	1,08		1,75	2,63

Injection system EJOT Multifix PSF+ / Sormat ITH-Pe for masonry	**Annex C 31**
Performance Clay hollow brick Doppio Uni Brick description Installation parameters, Displacements	

Brick type: Clay hollow brick Doppio Uni

Table C58: Characteristic values of resistance under tension and shear loads

Anchor size	Sleeve	Effective anchorage depth	Characteristic resistance		
			Use category d/d w/d w/w		
			40°C / 24°C	80°C / 50°C	For all temperature range
		h_{ef}	N_{Rk} [1]	N_{Rk} [1]	$V_{Rk,b}$ [2]
		[mm]	[kN]		
Compressive strength $f_b \geq 10$ N/mm²					
M8	SH 12x80	80	0,9	0,6	2,0
M8 / M10	SH 16x85	85	0,9	0,6	2,0
	SH 16x130	130	0,9	0,6	2,0
	SH 16x130/330	130	0,9	0,6	2,0
M12 / M16	SH 20x85	85	1,2	0,75	2,0
	SH 20x130	130	1,2	0,75	2,0
	SH 20x200	200	1,2	0,75	2,0
Compressive strength $f_b \geq 16$ N/mm²					
M8	SH 12x80	80	0,9	0,75	2,5
M8 / M10	SH 16x85	85	1,2	0,9	2,5
	SH 16x130	130	1,2	0,9	2,5
	SH 16x130/330	130	1,2	0,9	2,5
M12 / M16	SH 20x85	85	1,5	0,9	2,5
	SH 20x130	130	1,5	0,9	2,5
	SH 20x200	200	1,5	0,9	2,5
Compressive strength $f_b \geq 20$ N/mm²					
M8	SH 12x80	80	1,2	0,75	3,0
M8 / M10	SH 16x85	85	1,2	0,9	3,0
	SH 16x130	130	1,5	0,9	3,0
	SH 16x130/330	130	1,5	0,9	3,0
M12 / M16	SH 20x85	85	1,5	0,9	3,0
	SH 20x130	130	1,5	0,9	3,0
	SH 20x200	200	1,5	0,9	3,0
Compressive strength $f_b \geq 28$ N/mm²					
M8	SH 12x80	80	1,5	0,9	3,5
M8 / M10	SH 16x85	85	1,5	1,2	3,5
	SH 16x130	130	1,5	1,2	3,5
	SH 16x130/330	130	1,5	1,2	3,5
M12 / M16	SH 20x85	85	2,0	1,2	3,5
	SH 20x130	130	2,0	1,2	3,5
	SH 20x200	200	2,0	1,2	3,5

[1] For design according TR 054: $N_{Rk} = N_{Rk,p} = N_{Rk,b}$; $N_{Rk,s}$ according to Table C2 Annex C2; Calculation $N_{Rk,pb}$ see TR 054
[2] For $V_{Rk,s}$ see Annex C 2, Table C2; Calculation of $V_{Rk,pb}$ and $V_{Rk,c}$ see TR 054

Brick type: Hollow Light weight concrete Bloc creux B40

Table C59: Description

Brick type	Hollow light weight concrete Bloc creux B40
Bulk density [kg/dm³]	0,8
Compressive strength [N/mm²]	4
Code	EN 771-3
Producer (country code)	e.g. Sepa (FR)
Brick dimensions [mm]	494 x 200 x 190
Drilling method	Rotary drilling

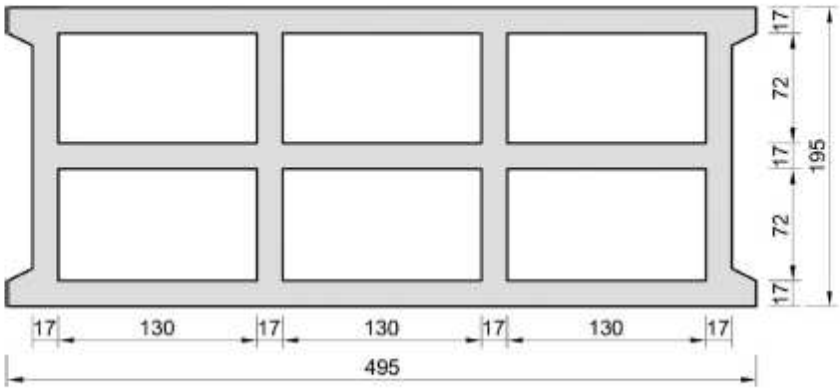


Table C60: Installation parameter (Edge and spacing distances)

Anchor size	Sleeve	Embedment depth	Edge distance	Spacing		Maximum installation torque
		h_{ef}	$c_{min} = c_{cr}$	$s_{cr} = s_{min\,\parallel}$	$s_{min\,\perp}$	max T_{inst}
		[mm]				[Nm]
M8	SH 12x80	80	100	494	190	2
M8 / M10	SH 16x85	85				
	SH 16x130	130				
	SH 16x130/330	130				
M12 / M16	SH 20x85	85	120			
	SH 20x130	130				

Table C61: Displacement

h_{ef}	N	δ_{N0}	$\delta_{N\infty}$	V	δ_{V0}	$\delta_{V\infty}$
[mm]	[kN]	[mm]	[mm]	[kN]	[mm]	[mm]
80	$\frac{N_{Rk}}{1,4 \bullet \gamma_M}$	0,14	0,29	$\frac{V_{Rk}}{1,4 \bullet \gamma_M}$	0,25	0,37
85		0,45	0,90		0,98	1,47
130		0,61	1,22		1,10	1,65

Brick type: Hollow Light weight concrete Bloc creux B40

Table C62: Characteristic values of resistance under tension and shear loads

Anchor size	Sleeve	Effective anchorage depth	Characteristic resistance		
			Use category d/d w/d w/w		
			40°C / 24°C	80°C / 50°C	For all temperature range
		h_{ef}	N_{Rk} [1]	N_{Rk} [1]	$V_{Rk,b}$ [2]
		[mm]	[kN]		
Compressive strength $f_b \geq 4$ N/mm²					
M8	SH 12x80	80	0,4	0,3	1,2
	SH 16x85	85	0,6	0,5	3,0
	SH 16x130	130	2,0	1,5	3,5
	SH 16x130/330	130	2,0	1,5	3,5
M10	SH 16x85	85	0,6	0,5	3,0
	SH 16x130	130	2,0	1,5	3,5
	SH 16x130/330	130	2,0	1,5	3,5
M12	SH 20x85	85	0,9	0,6	3,0
	SH 20x130	130	2,0	1,5	3,5
M16	SH 20x85	85	0,9	0,6	3,0
	SH 20x130	130	2,0	1,5	3,5

[1] For design according TR 054: $N_{Rk} = N_{Rk,p} = N_{Rk,b}$; $N_{Rk,s}$ according to Table C2 Annex C2; Calculation $N_{Rk,pb}$ see TR 054

[2] For $V_{Rk,s}$ see Annex C 2, Table C2; Calculation of $V_{Rk,pb}$ and $V_{Rk,c}$ see TR 054

Brick type: Solid light weight concrete brick

Table C63: Description

Brick type	Solid light weight concrete brick
Bulk density [kg/dm³]	0,63
Compressive strength [N/mm²]	2
Code	EN 771-3
Producer (country code)	e.g. Bisotherm (DE)
Brick dimensions [mm]	300 x 123 x 248
Drilling method	Rotary drilling

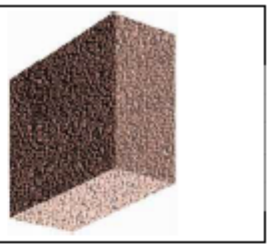


Table C64: Installation parameter (Edge and spacing distances)

Anchor size	Sleeve	Embedment depth	Edge distance	Spacing	Maximum installation torque
		h_{ef}	$c_{min} = c_{cr}$	$s_{cr} = s_{min\,\parallel} = s_{min\,\perp}$	max T_{inst}
		[mm]			[Nm]
M8	-	80	120	240	6
M10	-	90	135	270	
M12	-	100	150	300	10
M16	-	100	150	300	14

Table C65: Displacement

h_{ef}	N	δ_{N0}	$\delta_{N\infty}$	V	δ_{V0}	$\delta_{V\infty}$
[mm]	[kN]	[mm]	[mm]	[kN]	[mm]	[mm]
80	$\frac{N_{Rk}}{1.4 \bullet \gamma_M}$	0,64	1,28	$\frac{V_{Rk}}{1.4 \bullet \gamma_M}$	0,50	0,75
90		0,70	1,41		0,68	1,03
100		0,21	0,42		0,54	0,81

Brick type: Solid light weight concrete brick

Table C66: Characteristic values of resistance under tension and shear loads

Anchor size	Sleeve	Effective anchorage depth	Characteristic resistance		
			Use category d/d w/d w/w		
			40°C / 24°C	80°C / 50°C	For all temperature range
		h_{ef}	N_{Rk} [1]	N_{Rk} [1]	$V_{Rk,b}$ [2]
		[mm]	[kN]		
Compressive strength $f_b \geq 2$ N/mm²					
M8	-	80	2,0	1,5	3,0
M10	-	90	2,0	1,5	3,5
M12	-	100	2,0	1,5	4,0
M16	-	100	2,0	1,5	4,0

[1] For design according TR 054: $N_{Rk} = N_{Rk,p} = N_{Rk,b}$; $N_{Rk,s}$ according to Table C2 Annex C2; Calculation $N_{Rk,pb}$ see TR 054

[2] For $V_{Rk,s}$ see Annex C 2, Table C2; Calculation of $V_{Rk,pb}$ and $V_{Rk,c}$ see TR 054

Brick type: Hollow light weight concrete brick – Leca Lex harkko RUH-200

Table C67: Description

Brick type	Hollow light weight concrete Leca Lex harkko RUH-200
Bulk density [kg/dm³]	0,7
Compressive strength [N/mm²]	2,7
Code	EN 771-3
Producer (country code)	e.g. Saint-Gobain Weber (Fin)
Brick dimensions [mm]	498 x 200 x 195
Drilling method	Rotary drilling

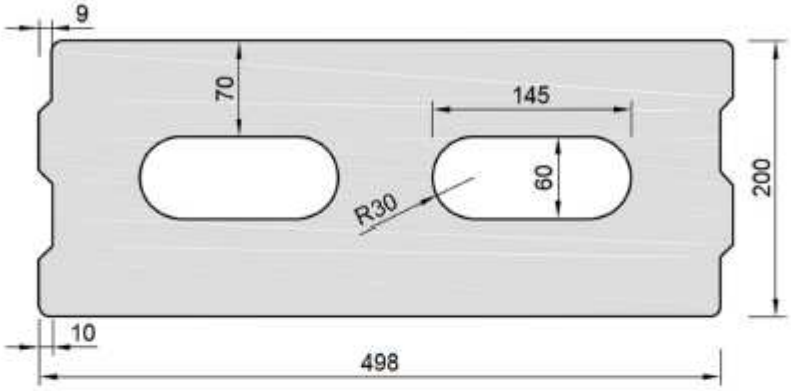


Table C68: Installation parameter (Edge and spacing distances)

Anchor size	Sleeve	Embedment depth	Edge distance	Spacing		Maximum installation torque
		h_{ef}	$c_{min} = c_{cr}$	$s_{cr} = s_{min\,II}$	$s_{min\,\perp}$	max T_{inst}
		[mm]				[Nm]
M8	SH 12x80	80	120	498	195	8
M8 / M10	SH 16x85	85	127			
	SH 16x130	130	195			
	SH 16x130/330	130	195			
M12 / M16	SH 20x85	85	127			
	SH 20x130	130	195			

Table C69: Displacement

h_{ef}	N	δ_{N0}	$\delta_{N\infty}$	V	δ_{V0}	$\delta_{V\infty}$
[mm]	[kN]	[mm]	[mm]	[kN]	[mm]	[mm]
80	$\frac{N_{Rk}}{1,4 \bullet \gamma_M}$	0,11	0,22	$\frac{V_{Rk}}{1,4 \bullet \gamma_M}$	0,47	0,70
85		0,11	0,23		0,38	0,57
130		0,10	0,20		0,56	0,85

Brick type: Hollow light weight concrete brick – Leca Lex harkko RUH-200

Table C70: Characteristic values of resistance under tension and shear loads

Anchor size	Sleeve	Effective anchorage depth	Characteristic resistance		
			Use category d/d w/d w/w		
			40°C / 24°C	80°C / 50°C	For all temperature range
		h_{ef}	N_{Rk} [1]	N_{Rk} [1]	$V_{Rk,b}$ [2]
		[mm]	[kN]		
Compressive strength $f_b \geq 2,7$ N/mm²					
M8	SH 12x80	80	2,0	1,2	2,5
	SH 16x85	85	2,0	1,2	3,5
	SH 16x130	130	2,5	1,5	3,5
	SH 16x130/330	130	2,5	1,5	3,5
M10	SH 16x85	85	2,0	1,5	3,5
	SH 16x130	130	2,5	1,5	3,5
	SH 16x130/330	130	2,5	1,5	3,5
M12	SH 20x85	85	2,5	1,5	3,5
	SH 20x130	130	2,5	1,5	3,5
M16	SH 20x85	85	2,5	1,5	3,5
	SH 20x130	130	2,5	1,5	3,5

[1] For design according TR 054: $N_{Rk} = N_{Rk,p} = N_{Rk,b}$; $N_{Rk,s}$ according to Table C2 Annex C2; Calculation $N_{Rk,pb}$ see TR 054

[2] For $V_{Rk,s}$ see Annex C 2, Table C2; Calculation of $V_{Rk,pb}$ and $V_{Rk,c}$ see TR 054

Brick type: Solid light weight concrete brick – Leca Lex harkko RUH-200 kulma

Table C71: Description

Brick type	Solid light weight concrete Leca Lex harkko RUH-200 kulma
Bulk density [kg/dm³]	0,78
Compressive strength [N/mm²]	3
Code	EN 771-3
Producer (country code)	e.g. Saint-Gobain Weber (Fin)
Brick dimensions [mm]	498 x 200 x 195
Drilling method	Rotary drilling

Table C72: Installation parameter (Edge and spacing distances)

Anchor size	Sleeve	Embedment depth	Edge distance	Spacing	Maximum installation torque
		h_{ef}	$c_{min} = c_{cr}$	$s_{cr} = s_{min\,\parallel} = s_{min\,\perp}$	max T_{inst}
		[mm]			[Nm]
M8	-	80	120	240	6
M10	-	90	135	270	12
M12	-	100	150	300	14
M16	-	100	150	300	16
M8	SH 12x80	80	120	240	8
M8 / M10	SH 16x85	85	127	255	
	SH 16x130	130	195	390	16
	SH 16x130/330	130	195	390	16
M12 / M16	SH 20x85	85	127	255	12
	SH 20x130	130	195	390	16

Table C73: Displacement

h_{ef}	N	δ_{N0}	$\delta_{N\infty}$	V	δ_{V0}	$\delta_{V\infty}$
[mm]	[kN]	[mm]	[mm]	[kN]	[mm]	[mm]
80	$\frac{N_{Rk}}{1,4 \bullet \gamma_M}$	0,09	0,18	$\frac{V_{Rk}}{1,4 \bullet \gamma_M}$	0,48	0,72
85		0,07	0,15		0,77	1,15
90		0,13	0,26		0,26	0,39
100		0,13	0,23		0,36	0,54
130		0,10	0,21		0,68	1,01

Brick type: Solid light weight concrete brick – Leca Lex harkko RUH-200 kulma

Table C74: Characteristic values of resistance under tension and shear loads

Anchor size	Sleeve	Effective anchorage depth	Characteristic resistance		
			Use category d/d w/d w/w		
			40°C / 24°C	80°C / 50°C	For all temperature range
		h_{ef}	N_{Rk} [1]	N_{Rk} [1]	$V_{Rk,b}$ [2]
		[mm]	[kN]		
Compressive strength $f_b \geq 3{,}0$ N/mm²					
M8	-	80	2,0	1,2	3,0
M10	-	90	3,0	2,0	4,0
M12	-	100	3,0	2,0	4,0
M16	-	100	3,0	2,0	4,0
M8	SH 12x80	80	2,0	1,2	3,0
	SH 16x85	85	2,0	1,5	3,5
	SH 16x130	130	3,0	2,0	4,0
	SH 16x130/330	130	3,0	2,0	4,0
M10	SH 16x85	85	2,0	1,5	3,5
	SH 16x130	130	3,0	2,0	4,0
	SH 16x130/330	130	3,0	2,0	4,0
M12 / M16	SH 20x85	85	2,0	1,5	4,5
	SH 20x130	130	3,0	2,0	4,5

[1] For design according TR 054: $N_{Rk} = N_{Rk,p} = N_{Rk,b}$; $N_{Rk,a}$ according to Table C2 Annex C2; Calculation $N_{Rk,pb}$ see TR 054

[2] For $V_{Rk,a}$ see Annex C 2, Table C2; Calculation of $V_{Rk,pb}$ and $V_{Rk,c}$ see TR 054