TECHNICAL DATA SHEET - BETON Q12 EA

DESCRIPTION

Concrete bone spacer blocks are used to ensure correct concrete cover in construction.
The spacers are made of high-strength concrete based on sulfate-resistant cement (CEM I 52.5 N-SR3/NA, low-alkali in accordance with EN 197-1) and are designed to withstand highly aggressive environmental conditions in compliance with current Danish requirements for infrastructure projects and other chemically exposed concrete structures.

The concrete spaces has three concrete covers and can be used for both vertical and horizontal reinforcement.
The spacers can be delivered with or without a cast in 1,2 mm stainless steel tie wire.

Note there is no hole in the spacers without wire

Test reports are available upon request.

PROPERTIES

- Produced in accordance with current Danish standards
- Complies with all requirements for concrete in extra aggressive environments
- Ensures correct concrete cover
- Compatible with all types of reinforcement
- Easy to install

AREAS OF APPLICATION

- Bridge construction
- Tunnels
- Harbor facilities
- Underground parking structures
- Foundations
- Other concrete structures in extra aggressive environments

ACCORDANCE

The product is manufactured in accordance with:

- EN 206
- DS/EN 1992-1-1 (Eurocode 2)
- DS/INF 135

TESTED IN ACCORDANCE WITH THE FOLLOWING STANDARDS

- DS/EN 480-11:2005
- DS/EN 12390-3:2019
- DS 423.36:1995
- DS 423:41-45:2002
- DS/EN 12390-9:2016 (de-icing salt)
- NT Build 492:1999

ENVIRONMENTAL CLASS (EN 206 / DS/EN 1992-1-1)

X0	No risk of corrosion
XC1-XC4	Carbonation caused by fluctuating humidity and drying conditions
XD1-XD3	Chloride exposure from road salt – high humidity and/or wet environments
XS1-XS3	Chloride ingress due to seawater – continuous immersion or exposure to splash zones
XF1-XF4	Exposure to frost/thaw conditions and chemical agents from soil and groundwater
XA1-XA3	Industrial zones exposed to aggressive chemical agents

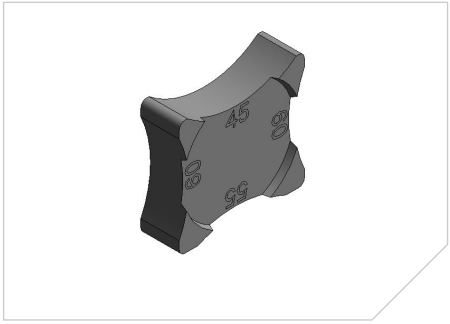
REGULATORY REQUIREMENTS

Properties	Value/description
Material	High-strength concrete
Cement	CEM I 52,5 N-SR3/NA ((low-alkali, sulfate-resistant)
Compressive Strength	≥ 50 MPa (C50/60)
Water-cement ratio	≤ 0,45
Density	App. 2.400 kg/m³

TECHNICAL SPECIFICATIONS

W/C-ratio	< 0,38
Total Paste or Cement Content	> 300 kg/m³
Silica Fume	k-value=2
Fly Ash	k-value=0,4
Micro Silica Content	≥ 5%
Fly Ash Content	20–30%
Plasticizer Content	≤ 2%
Air-entraining Agent	≤ 2%
Mean Compressive Strength (DS/EN 12390-3:2019)	68,8 MPa
Mean Density (DS/EN 12390-3:2019)	2060 kg/m³
Air Content (DS/EN 480-11:2005)	11,6%
Specific Surface	44 mm^{-1}
Spacing Factor	0,08 mm

GEOMETRY



Item no.	Description
1132285	Beton Q12 EA 35/40/50 m/rustfri tråd
1132290	Beton Q12 EA 45/55/60 u/tråd
1132295	Beton Q12 EA 45/55/60 m/ rustfri tråd

Please Note:
The above items are in stock.
All designs of concretespacers in HauCons product range can be produced in mixdesign Q12 EA also with fiber reinforcement.
The estimated production time is 4 weeks for non-stock items.

CE MARKING

Concrete spacers are not subject to a harmonized standard and does not have to be CE marked according to Construction Products Regulation No. 305-2011.