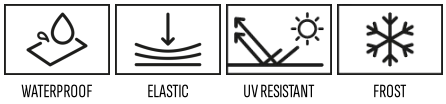
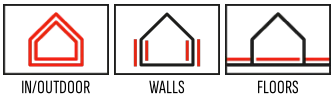
BETONSEAL PU 300

Thixotropic epoxy-polyurethane bi-component sealant with high chemical-mechanical performance

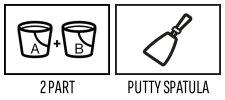
TECHNICAL FEATURES



FIELD OF APPLICATION



APPLICATIONS



Description

BETONSEAL PU 300 is a 2 pack thixotropic sealant of medium modulus epoxy-polyurethane nature consisting of:
• component A: mixture of epoxy and polyurethane prepolymers (isocyanate-free) with high molecular weight, additives and fillers;
• component B: pigments and co-polymerization polyamine.
Once the two components have been mixed, BETONSEAL PU 300 gives rise to a thixotropic creamy paste easily applied by means of a trowel or stucco spatula and is therefore suitable for use both vertically and horizontally.
BETONSEAL PU 300 does not contain solvents or other volatile substances for which no shrinkage or distortion of the seals will occur.
The sealings made with BETONSEAL PU 300 are:
→ elastic: elongation under normal operating conditions 10% maximum;
→ abrasion resistant;
→ puncture-resistant;
→ chemically resistant to the most common aggressive agents (oils, water, alkaline cleaning solutions etc.);
→ waterproof and vapor-tight.

Colour

BETONSEAL PU 300 is available in the following colors:
• GRIGIO CEMENTO (cement grey).
Nord Resine also produces colors upon specific request.
For further information, please contact the Nord Resine Technical Service at color@nordresine.com.

Field of application

BETONSEAL PU 300 It is used - both indoors and outdoors - as a sealant for:
• joints of vertical concrete construction elements;
• floor joints on industrial floors and/or floors subject to heavy traffic;
• joints of p-PVC or rubber floors;
• connection of bases of industrial machinery;
• joints on floors with ceramic coatings subject to trolley or pedestrian traffic (supermarkets, shopping malls, sidewalks, etc.)

Advantages

• BETONSEAL PU 300 is lightweight and easy to apply.

BETONSEAL PU 300

• BETONSEAL PU 300 is not subject to shrinkage during the curing process.
• BETONSEAL PU 300 is naturallly hydrofobic that makes it suitable for sealing horizontal joints in prefabricated buildings.
• BETONSEAL PU 300 is thixotropic and therefore suitable for vertical application, even at high thickness.
• BETONSEAL PU 300 retains good elasticity even at low temperatures.

General preparation of the laying surface

• Thoroughly clean the area to be worked on by means of a high-pressure water wash, removing dust, cement tins, cutting residues, etc.
• Alternatively, you can proceed with a wire brush and subsequent blowing with compressed air.
• Make sure that the joint to be worked on is completely dry.
• Wait for the concrete to be sealed to completely cure in order for any shrinkage effects to be completed.
• The functionality and durability of the coupling depend on its correct preparation and execution.
In particular, it is important to:
→ avoid adhesion of BETONSEAL PU 300 to the bottom of the joint;
→ correctly size the thickness of the seal according to the width of the joint (see Tab.1).
Tab.1: sealing thickness as a function of the joint width.

Joint width (L)	BETONSEAL PU 300 sealing thickness (S)
< 10 mm	S = L
10 ≤ L ≤ 20 mm	S = 10 mm
> 20 mm	S = L/2

Tab.1: sealing thickness as a function of the joint width.

• Proper thickness determination is achieved by installing at the proper depth a FILTENE FONDO GIUNTO (see Data Sheet), which also prevents the sealant from adhering to the bottom of the joint.
• Treat the edges of the joint with NORPHEN FONDO IGRO (see Data Sheet), taking care not to smear the exposed parts.
• Wait 3 to 4 hours before sealing.
• For a better final aesthetic result, it is convenient to apply paper tape on the edges of the joint, which will be removed at the end of the sealing operations.

Product preparation

• Open the comp container. A and mix its contents with a professional mixer at low speed.
• Shake the comp. B in its packaging before sampling.
• Pour comp. B into the comp. A and mix with a professional mixer.
• With a metal spatula, scrape the sides of the container in which you are making the dough to remove all residues that have not been properly kneaded.
• Stir briefly then apply the mixture.
It should be taken into account that the more the mass of A+B is mixed, the more it heats up, shortening the workability time.

NOTE: take into account the ambient temperature when determining the amount of A+B to be mixed. At +23°C the useful life of 1 kg of mixture is about 45 minutes.

Product application

• Apply BETONSEAL PU 300 with the flat side of a square-tipped trowel or putty trowel, making sure the product adheres well to the walls of the joint.
• The surface of the sealant can be easily finished by moistening the spatula with soapy water.

Consumption

BETONSEAL PU 300

type of application	minimum consumption	maximum consumption	u.m.	notes
L x S = 10 mm x 10 mm	0,155	0,155	kg/m	(1)
L x S = 5 mm x 5 mm	0,040	0,040	kg/m	(1)
L x S = 12 mm x 10 mm	0,186	0,186	kg/m	(1)
L x S = 15 mm x 10 mm	0,233	0,233	kg/m	(1)
L x S = 18 mm x 10 mm	0,279	0,279	kg/m	(1)
L x S = 20 mm x 10 mm	0,310	0,310	kg/m	(1)
L x S = 25 mm x 12,5 mm	0,484	0,484	kg/m	(1)
L x S = 50 mm x 25 mm	1,9385	1,938	kg/m	(1)
L x S = 70 mm x 35 mm	3,798	3,798	kg/m	(1)
L x S = 100 mm x 50 mm	7,750	7,750	kg/m	(1)

(1) The table above shows consumption for different joint sizes, where L = joint width (in mm) and S = seal thickness (in mm). Consumption is expressed in kg per meter of sealed joint.
The formula for calculating consumption, in kg/m of joint length, is:
CONSUMPTION = 0.00155 x Joint width, L (in mm) x Seal thickness, S (in mm).
To fill a volume of 1 L of joint takes 1.55 kg.

Tool cleaning

• Fresh product: cleaning with acetone, SOLVLINE CLEANER or nitro thinner.
• Hardened product: mechanical removal, soaking for at least 24 hours in ACETONE or nitro thinner or use of paint strippers (FLUID STRIPPER or GEL STRIPPER) or heat gun.

Useful tips for laying

• Do not apply below +10°C.
• During the cold season, take the product to a heated place before applying and ensure that maturation temperatures always exceed +10 °C.
• During the hottest period, keep the product containers cool and get a scale to divide the packages, as the amount of product to be prepared for each mixture will have to be small.
• If exposed to the sun's rays BETONSEAL PU 300 it undergoes partial yellowing, which in any case does not affect its functional characteristics.
• Do not use on damp substrates or substrates that may be subject to high rising damp surfaces.
- Carry out sealing preferentially in the mid-season (autumn or spring), avoiding working at high temperatures (maximum expansion of the part) to prevent possible defects when shrinking the part, at low temperatures.
• BETONSEAL PU 300 is able to withstand maximum expansion/contraction of 10% compared to the initial width of the joint.
• Not suitable for sealing surfaces made of bitumen or similar products in the presence of which there may be exudations of oils or plasticizers that would cause incorrect adhesion of BETONSEAL PU 300.
• Carefully read the Safety Data Sheets of all products included in the BETONSEAL PU 300 system before use.

Technical Data

► PRODUCT IDENTIFICATION DATA		value
Density (comp. A) at 23 °C, 50%RH, EN ISO 1675	kg/L	1,71 ± 0,03
Density (comp. B) at 23 °C, 50%RH, EN ISO 1675	kg/L	0,95 ± 0,02
Appearance (Component A)	-	Whitish paste
Appearance (Component B)	-	Colored liquid ammonia-smelling

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BETONSEAL PU 300

► APPLICATION DATA AND FINAL PERFORMANCE		value
Mixing ratio by weight (A:B)	-	94 : 6
Density (A+B) at 23 °C, 50 %RH, EN ISO 1675	kg/L	1,55 ± 0,03
Pot-life (thermometric), +23°C to +40°C, EN ISO 9514	Min	45 ± 3
Application temperature	°C	from +10 to +30
Operating temperature	°C	–20 to +80
Set to foot traffic (at +23°C)	Hours	24
Set to foot traffic (at +5°C)	Hours	48
Full curing time (at +23°C, 50% RH)	days	5
Shore A hardness (maturation 7 days at +23 °C, 50 %RH), DIN 53505	-	(62 ± 2)°
Maximum expansion in operation (compared to the width of the joint)	-	10%

Product storage

• 24 months in the closed original packaging, in a dry and covered place away from direct sunlight, at a temperature
between +5°C and +30°C.

Packaging

VARIANT	PACKAGE	ADR	PACKAGE / PALLET	COMPONENTS	*NOTES*
GRIGIO CEMENTO (cement grey)	kit (A+B) - 6.4 kg	P*	-	A = 6,00 kg (plastic bucket) B = 0.40 kg (plastic bottle)	-

ADR legend:

NO = NON-DANGEROUS goods

P* = DANGEROUS goods packed in limited quantities (packed as per ADR Chapter 3.4)

Sì = DANGEROUS Goods

LEGAL NOTES

Any advice concerning the methods of use of our products reflects the current state of knowledge and does not imply any guarantee and/or responsibility as to the outcome of the application. Consequently, the customer must verify the product's suitability for the intended use and purposes by testing the product in advance. The Internet website www.nordresine.com contains the latest revision of this technical sheet: in case of any doubts, verify the date of revision (where missing, use the date of issue) by consulting the "PRODUCTS" section.

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