PU 500

Vai a TDS

Sealants

TWO-COMPONENT, CASTABLE POLYURETHANE SEALANT AND ADHESIVE WITH A HIGH MODULUS OF ELASTICITY FOR ROAD JOINT FLUSH WITH THE SURFACE

PRODUCT DESCRIPTION

PU 500 is an elastomeric polyurethane based sealant. It is composed of two pre-dosed components: part A is a resin, part B is a hardener. After mixing the two components, the product becomes a cohesive pourable mixture. When large voids have to be filled, PU 500 can be mixed with quartz sand up to a maximum ratio of 1:1 by weight. The addition of an aggregate enhances the mechanical characteristics of friction resistance and the thixotropy of the product, but the sealant deformability is decreased. PU 500 is solvent free and the slight smell, that can be noticed, is only due to the resin. PU 500 cross-links because of the reaction between resin and hardener. The substrate temperature and the environment can influence anyway the cross-linking time of the sealant: high temperatures reduce the workability time of the mixture and accelerate the setting time. Low temperatures make the reaction time longer. The curing time of the sealant may be reduced if required by adding the specific accelerator PU 500 Catalyst. After crosslinking, PU 500 becomes an elastomeric substance characterized by a high surface hardness which can deform under compressive, tensile and shear loads. PU 500 is suitable to support vehicular traffic, on roads, freeways and highways. PU 500 is the ideal product to carry out sealing substrates subject to limited movements and heavy loads.

FIELD OF APPLICATION

PU 500 is a two-component polyurethane elastomeric sealant, specifically developed for highway construction joints and for filling and sealing anchoring heads made from pre-formed rubber, reinforced rubber and steel road joints between adjacent decks and between deck and abutments of road substructures, such as roads, railways, airports. Due to its physical and mechanical properties, PU 500 can be used as a connection sealant between prefabricated road joints and the adjacent bituminous conglomerate, creating a seal between the two elements while guaranteeing considerable surface hardness and mechanical resistance to friction. PU 500 is resistant to bad weather conditions and deformability due to compression, with good tensile and shear strength. PU 500 can be used for surface sealing of the anchoring bolts in pre-formed rubber sections. PU 500, after mixing the two components A+B, can be added to specific mineral fillers which allow it to obtain different mechanical and deformation properties depending on the different foreseen stresses.

SUITABLE SUBSTRATES

· Iron surface
· Aluminum surface
· Rust free metallic surface
· Asphalt
· Bitumen
· Concrete

LIMITATIONS

· Do not apply on dusty and flaky surfaces.
· Do not apply on damp surfaces.
· Do not apply on surfaces which are contaminated with oil, grease or form-release compounds, as bonding could be compromised.
· Do not apply on bituminous surfaces where the bleeding of oil may occur.
· Do not apply if temperature is lower than 0°C.

APPLICATION PROCEDURE

a) Preparation of the support

All the surfaces must be dry, sound and free of dust, crumbling parts, oil, grease, wax and old paint. To guarantee that the sealant works correctly, the joint must be free to expand and contract.

b) Preparing the product

PU 500 comes in separate packaging of 10 kg plastic drums (A+B). Homogenize the single components, pour component B into component A, mix with a drill with low rotation speed without entraining air, avoid partial mixing as it will not guarantee the correct ratio between resin and hardener. Immediately after mixing the two components, pour the product, without entraining air, directly from the drum into the joint with a metallic trowel. The product can be mixed with a quartz aggregate till a ratio of 1:1 by weight.

c) Applying the product

The application is done by pouring the product, without entraining air, directly from the drum into the joint and smoothened with a metallic trowel.

COVERAGE / CONSUMPTION

The consumption of PU 500 is typical consumption is 1.2 Kg/Lt.

PACKAKING

PU 500 is supplied in:
– 10 Kg Plastic buckets

SHELF LIFE

Original sealed packaging of this product is guaranteed to be of first quality for 12 months if stored in a dry area and temperatures between +5oC and +35oC.

SAFETY INSTRUCTION

PU 500 component A is corrosive and can cause damage to eyes. PU 500 component B is irritating for the eyes, skin and respiratory system. May also cause irreparable damage if used for long periods. Frequent contact with the skin may cause an allergic reaction in those subjects sensitive to isocyanates. Component B may become harmful and cause sensitisation if inhaled at temperatures above +60°C. In the event of sickness seek medical attention. PU 500 Catalyst is not considered hazardous according to current norms and guidelines regarding the classification of mixtures. When applying the product, we recommend using protective clothing, gloves, safety goggles and a safety mask to protect the respiratory system. Make sure the area is well-ventilated during application. If the product comes in contact with the eyes or skin wash immediately with plenty of water and seek medical attention. PU 500 component A is also hazardous for aquatic life. Do not dispose of this product in the environment. For further and complete information about a safety use of our product please refer to our latest version of the Material Safety Data Sheet. PRODUCT ONLY FOR PROFESSIONAL USE

Via sorte, 2, 24030
Barzana BG, Italy

TECHNICAL DATA

Product identity	
Consistency:	pourable paste
Color:	black
Density (kg/m^3):	1200
Viscosity (mPa.s):	200,000
Dry solids content (%):	100
Application data (at +23°C and 50% R.H.)	
Dilution:	Ready to used
Set to light foot:	120-180 minutes
Hardening time time:	24 hours
Service temperature range:	-40°C to +70°C
Application temperature:	+5°C to +35°C
Elongation:	300%
Tensile strength:	5.7 N/mm²
Tear strength:	25 kN / m
Hardness Shore A:	90
Module of elasticity at 100% elongation:	0.4
Water resistance:	excellent
Atmospheric agent resistance:	excellent

WARNING

Danger. Contains Portland Cement: Chromium VI < 2 ppm within the validity period of the product. H315 Causes skin irritation. H317 May cause an allergic skin reaction. H318 Causes serious eye damage. H335 May cause respiratory irritation. P261 Avoid breathing dust. P280 Wear protective gloves/protective clothing/eye protection/face protection. P302 + P352 IF IN CONTACT WITH YOUR SKIN: Wash with plenty of water/... P305 + P351 + P338 IF IN CONTACT WITH YOUR EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P310 Immediately call a POISON CENTER/ doctor/...

EMISSION CLASS FOR BUILDING MATERIAL M1

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