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OLYMPUS®

TECHNICAL DATA SHEET

OLY WALL STRUKTURA 10

Structural plaster based on NHL

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OLY WALL STRUKTURA 10 is a mineral plaster based on hydraulic binder and pure natural hydraulic lime according to EN 459-1 for reinforcement work on masonry, concrete, mixed masonry and stone. Vapour permeable for embedding special earthquake and structural nets. Ideal for high thicknesses. Not suitable for masonry with highly porous blocks. Any special additives may only be added with the manufacturer's permission.

CE

Characteristics

- Low elastic modulus
- Excellent workability
- Reduced shrinkage
- Good adhesion

Technical data	Typical value
Units per pallet	54 cf./Pal.
Quantity per unit	25 kg/cf.
Grain size	0 - 4 mm
Consumption	≈ 1,5 - 1,7 kg/m²/mm
Water requirement	approx. 5 l/cf.
Thickness	10 – 30 mm
Minimum thickness	10 mm
Bulk density - after drying at 105°C	< 1.800 kg/m³
Specific weight of fresh mortar (EN 1015-6)	approx. 1.850 kg/m³
Apparent bulk density (EN 1097-3)	approx. 1.400 kg/m³
Thermal conductivity $\lambda_{10,dry}$ (EN 1745:2002)	0,82 W/mK (tabular value) for P=50%
Thermal conductivity $\lambda_{10,dry}$ (EN 1745:2002)	0,89 W/mK (tabular value) for P=90%
Specific heat	approx. 1 kJ/kg K
Compressive strength (28 days)	≥ 10 MPa (EN 1015-11)
Flexural strength	approx. 3 MPa

Technical data	Typical value
Adhesion to substrate (EN 1015-12)	approx. 0,9 MPa
Elastic modulus	approx. 6.000 MPa
Shear strength	0,15 MPa
GM (EN 998-1)	CSIV
GM (EN 998-2)	M10
Test certificates	Complies with EN 998-1 and EN 998-2
Packaging warnings	In water-resistant paper sacks
Temperature of the substrate	> 5 °C
Fire reaction	A1
Vapour permeability	μ 15/35 (tabular value)

Base material

- Natural hydraulic lime – NHL5 according to EN 459-1
- Hydraulic binder
- Fibres
- Fine ground limestone sand
- Additives to improve workability

Working conditions

During the working and drying phases, the temperature of the surrounding environment and the substrate must not fall below +5°C and rise above +30 °C. Until fully dried, protect from freezing, excessive drying (direct sunlight, wind), and subsequent moisture (rain).

Substrate

The substrate must be dry, free from dust, not frozen, absorbent, flat, sufficiently rough and consistent, and free from efflorescence and releasing agents such as form oil or similar products. The substrate should be pre-wetted to saturation, adequately and in good time.

Preparation

Mix the repair and reinforcement mortar with the prescribed amount of water using a suitable continuous mixer or concrete mixer for approximately 2 minutes until a homogeneous mixture is obtained. The material left in open containers should not be used anymore, nor mixed with fresh material.

Application

The surface can be levelled and smoothed within the working time. Cavities and irregularities in the surface must first be reprofiled, after which the layer of the desired thickness is applied. Joints in the substrate must absolutely be taken up and reconstructed in the coating layer as well. We recommend the use of a compressor with high power (at least 400 litres/min.). Take care to fully incorporate the reinforcement reinforcement (OLY MESH) and close any underlying voids.
Appropriate after-treatment must be provided in accordance with OLYMPUS guidelines.

Hazard considerations

Safety data are provided in the Safety Data Sheet. Before using the product, carefully consult the sheet.

Storage

Store in a cool, dry place, preferably on wooden pallets.
Shelf life: minimum 12 months according to Directive 1907/2006/EC Annex XVII at 20°C and 65% relative humidity.

General warnings

The information in this technical data sheet corresponds to our current knowledge and experience. The data has been compiled with the utmost care and attention, but without any guarantee of accuracy or completeness, and without any responsibility for the user's further decisions. The data itself does not entail any legal obligations or secondary duties of any kind. The data does not relieve the customer from independently verifying the product's suitability for its intended use. Our products are subject to continuous quality control both on raw materials and the finished product to ensure consistent quality. Our technicians and consultants are available for information, clarification, and inquiries regarding the use and processing of our products, as well as for site inspections. Updated technical data sheets are available on the internet at www.olympus-italia.com or can be requested from our offices. Marking obligations are not linked to the intrinsic nature of a product but to the intended use for which a specific material is applied: before placing an order, it is the customer's responsibility to submit all available documentation to the Project Manager, so that they can determine the suitability of the materials (in terms of certifications and performance) for their intended use.
To verify the latest version of this technical data sheet, information, technical assistance, and other structural reinforcement systems, please contact the Olympus technical office: email: ufficiotecnico@olympus-italia.com – tel: 800.910272 – web: www.olympus-italia.com

Product for professional use