

SMET NHL 5 – Eminently Hydraulic Lime Binder

SMET NHL 5 is a high-quality, pure Natural Hydraulic Lime binder, produced under an ISO 9001 and ISO 14001 system to EN 459-1. The eminent hydraulic strength development of SMET NHL 5 makes it suitable for producing lime mortars for masonry work, rendering, plastering base coats and limecrete in extreme weather environments and exposed areas.

- Historical, gypsum and cement free NHL
- Produces highly breathable mortars
- Highly sulphate resistant
- Low-stress hardening process
- Excellent subsequent hardening
- High water retention and elasticity in produced mortars
- Excellent bond properties to masonry
- EN 459-1

Field Of Application

An eminently hydraulic lime binder for the production of mortars particularly suited for ecological new builds, restoration and preservation works in extreme weather environments and exposed areas. The product's special composition allows the mortar product to breathe and also permits constant hygrometric exchange between the substrate and the environment.

Production Of Mortars For Masonry

Binder : sand ratio: from 1 : 1.5 to 1 : 3 depending on site and material conditions, joint size and sand grading. Always use well graded clean sands (3 - 4mm down to 75 microns).

Production Of Mortars For Rendering

1. Scud Coat (3 - 5 mm) Binder : Sand ratio: 1 : 1.5
2. Base Coats (10 mm) Binder : Sand ratio: 1 : 2
3. Finish Coat (5 - 10 mm) Binder : Sand ratio: 1 : 2.5

Attention

SMET NHL 5 must be mixed with clean, well graded sands and clean water without additives. Do not mix or apply if the temperature is below +5°C or over 30°C. This product must not be mixed with gypsum or be applied onto gypsum based substrates. Avoid over-mixing, as this can adversely affect performance and strength. Material that has set must not be re-mixed. For interior applications, care must be taken when using heating systems. High or rapidly changing temperatures may affect the hydraulic setting reaction of the mortar/ render and cause cracking and/or adhesion problems. Delay the implementation of heating systems for as long as possible and heat up interiors gradually. Other unfavourable conditions, such as overly wet backgrounds, low background temperatures and low air temperatures can delay setting. During and after application, protect the mortar/render from adverse weather conditions, such as direct sunlight, strong winds, rain and frost.

Storage

12 months under dry, protected conditions in original unopened packaging.

Disposal Considerations

Waste treatment methods. Disposal of natural hydraulic lime should be in accordance with local and national legislation. The packaging used is intended for the packaging of this product and must not be reused for other purposes. Dispose of contents/container in a waste collection point. First, product needs to be inerted by hardening with water. After use, empty the packing completely.

Safety

The substance is classified according to regulation (EC) n°1272/2008 (CLP). H335: May cause respiratory irritation. Specific target organ toxicity – Single exposure, Hazard Category 3, respiratory tract irritation. H315 Causes skin irritation. Skin corrosion/irritation – Category 2. H318 Causes serious eye damage. Serious eye damage/eye irritation - Category 1. Signal word: Danger. See SOCLI Health and Safety Data Sheet for further information. All standard precautions for the handling of construction materials/chemicals must be taken.

Hazard Statements

H315 Causes skin irritation.

H318 Causes serious eye damage.

H335 May cause respiratory irritation.

Precautionary Statements

P102: Keep out of reach of children.

P261: Avoid breathing dust.

P280: Wear protective gloves/protective clothing/eye protection/face protection.

P302 + P352: IF ON SKIN: wash with plenty of soap and water.

P304 + P340: IF INHALED: remove victim to fresh air and keep at rest in a position comfortable for breathing.

P305 + P351 + P338: IF IN 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 or doctor.

P332 + P313: If skin irritation occurs, get medical advice / attention.

P501: Dispose of contents/container to a waste collection point. First, NHL needs to be inerted by hardening with water.

After use, empty the packing completely.

Technical Information	Unit	Average values	Conformity to Standard	
Physical Properties			Mini	Maxi
Fineness at 90 µ	%	4.6	-	15
Fineness at 200 µ	%	1.1	-	2
Expansion (soundness)	mm	0.4	-	2
Bulk density	kg/dm ³	0.77	-	-
Real density	g/cm ³	2.76	-	-
Blaine value	cm ² /g	9451	-	-
Water content	%	0.44	-	2
Mechanical Properties				
Beginning of set	min	298	60	-
End of set	min	468	-	900
Mechanical strength at 7 days	MPa	4.3	2	-
Mechanical strength at 28 days	MPa	6.8	5	15
Chemical Properties				
SO ₃	%	1.6	-	2
Free lime content	%	23.5	15	-

	
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EN 459-1 Natural Hydraulic Lime NHL 5	

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