# **TECHNICAL DATA SHEET**



# Saint-Astier<sup>®</sup> NHL 5

THE ROMAN LIME



# THE **+ BENEFITS**

- HIGH MECHANICAL STRENGTH
- IDEAL IN EXPOSED AREAS
- ENABLES MOISTURE EXCHANGE
- **RESISTANT TO SULPHATES AND SALTS**

#### SUITABLE FOR

- > Masonry, consolidation, grouting
- > Plastering, rendering, pointing
- > Lime concrete

**PACK AGING** 25 kg bag 40 bags per pallet (1T pallet)

# **PRODUCT COMPOSITION**

100 % pure natural hydraulic lime NHL 5 by Saint-Astier®.

## SHELF LIFE & GUARANTEE

One year from production date, if protected in the original packaging and stored in dry conditions. Close open bags as soon as possible. Manufacturer Civil Responsibility.



# Saint-Astier<sup>®</sup> NHL 5



MANUAL	STIPPLE COAT	BASE COAT		TOP COAT (preferably with NHL 3.5)			
APPLICATION	3 to 5 mm	10 to	20 mm	Scratched 7 to 12 mm		Smoothed or floated 5 to 7 mm (manual only)	
NEW MASONRY, BRICKS OR STONE BLOCKS	1 + 2 NHL 5 Sand 0/3 mm	1 + 2,5 NHL 5 Sand 0/3 mm				NHL 3.5 OR NHL 5	
OLD MASONRY, SOFT SUPPORTS AND/OR PLASTERS	1 + 2,5 NHL 5 Sand 0/3 mm	1 + 2,5 NHL 5 Sand 0/3 mm		3 Sand 0/2 mm		3 Sand 0/1 mm	
ESTIMATED CONSUMPTION	2.5 kg/m² for 3 to 5 mm	3.5 to 5 kg/m² for 10 mm		1.5 to 2 kg/m <sup>2</sup> for 5 mm			
WAITING TIME BETWEEN COATS	2 Days			7 Days			
MECHANICAL APPLICATION (Ask Saint-Astier Technical dept)	BASE COAT 10 to 15 mm		TOP COAT (preferably with NHL 3.5)       8 to 12 mm (Scraped, brushed)     Trowelled 5 to 7 mm (only man			-	
NEW MASONRY, BRICKS OR STONE BLOCKS	1 + 1/4 +   NHL 5 Cement Sand	4 0/3 mm	NHL 3.5 OR NHL	+ 3 .5 Sand 0/3 mm	N	I OR I NHL 5	
NEW MASONRY, BRICKS				.5 Sand 0/3 mm	N		
NEW MASONRY, BRICKS OR STONE BLOCKS OLD MASONRY SOFT SUPPORTS AND/OR OLD	NHL 5 Cement Sand		NHL 3.5 NHL	.5 Sand 0/3 mm	N	IHL 3.5 NHL 5	

**RENDERING / PLASTERING** 

# **BEDDING, POINTING, TILING & OTHER APPLICATIONS**

BEDDING, POINTING, TILING, SLABS	Bedding concrete blocks, hollow or solid bricks, hard stone	1 + 1/4 + 3 NHL 5 Cement Sand 0/4 mm	LIMECONCRETE	Lime concrete/screed	1     +     2     Ballast sand 0/15	
	Floors: laying slabs terracotta tiles and flagstones	0/4 mm	CHIMNEYS	Fireplace bricks (concrete, clay), solid bricks, stone	NHL 5 + 2 Sand 0/4 mm	
	Pointing: hard to medium natural stone	1 + 2,5 Sand 0/3 mm	OLD MASONRY	Injection	NHL 5	
ABOVE THE ROOF LINE*	Roof tiles, roof ridge, roof edges, roof connections	NHL 5	CONSOLIDATION	Grouting	1 + 1   NHL 5 Sand 0/2 mm	

\*In the case of low absorbent substrates, it may be necessary to incorporate a SBR into the mortar.

## **ADDITIONAL INFORMATION**



> For the first coat (base and stipple), the use of rendering machines is possible. If necessary, add an air-entraining agent. For finishing, please contact the Saint-Astier® Technical Department.

> Smooth finish with a maximum thickness of 5 mm. Do not use a plastic trowel for the finish.

> Traditional renders tend to have shading after a rain shower. This phenomenon shows that the lime mortar has a moisture-regulating function.

- > Quantity of mixing water depends on the moisture of the sand and the dosage. Generally 14 litres for a 25kg bag.
- > Technical documentation for implementation is available at www.stastier.co.uk



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#### PERFORMANCE

ESSENTIAL SPECIFICATION	BS-EN 459 PERFORMANCE STANDARD	SAINT-ASTIER® NHL 5 TYPICAL VALUES		
Bulk density	0.5 to 0.8 kg/l	0.7 kg/l		
Compressive strength 7 days	≥ 2	4 MPa		
Compressive strength 28 days	From 3.5 to 15 MPa	9 MPa		
SO <sub>3</sub>	≥ 2	≥ 2		
Free lime	≥ 15 %	> 20 %		
Stability	≤ 2 mm	≤1mm		
Initial setting time	More than 1 hours	2 to 3 hours		
Particle size 90µm	≤ 15 %	≤ 7 %		
Particle size 200µm	≤ 2 %	≤ 2 %		
Whiteness index	No requirements	67		
Quicklime residue after slaking	n/a	<1%		
Surface cover (cm² per gram)	n/a	8.000		

MORTARS	COMPRESSIVE STRENGTH – N/mm <sup>2</sup>				ELASTICITY MODULI (MPa)			
Mix ratio	BS-EN 459*	1:2	1:2.5	1:3	1:2	1:2.5	1:3	
7 days		1.96	1.00	0.88	n/a	n/a	n/a	
28 days	5	2.20	2	1.5	10,800	1,100	10,000	
6 months		7.31	5.91	5.31	18,000	17,050	16,150	
12 months		9.28	8.84	6.50	18,510	17,280	16,150	
24 months		10.81	8.81	7.8	21,500	18,020	17,430	
*BS- EN 459 (mortar ratio 1: 1 by volume with ISO 679 sand)								

#### APPLICATION

Application with spray gun possible.

#### WORKING TEMPERATURE

Not below 8°C or above 30°C. Dampen the substrates the day before and prior to application, allow the surface water to be reabsorbed. Avoid rapid drying due to high temperatures and/or strong winds by covering and curing with a light water mist as necessary. Protect wet mortars from frost for at least 10 days after application.

#### REWORKING

Possible within 8 hours.

#### HEALTH AND SAFETY

Follow the instructions on the safety data sheet and wear the appropriate equipment (gloves, mask, safety shoes....).

# FURTHER INFORMATION

Available on our website stastier.co.uk



