



# SAINT-ASTIER

LIME, LIFELONG EXCELLENCE

## Saint-Astier® NHL 5

THE ROMAN LIME



PURE NATURAL HYDRAULIC 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

### PACKAGING

- 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.

25  
KG

NHL  
5

BS-EN  
459



## RENDERING / PLASTERING

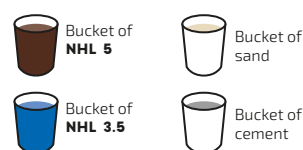
| MANUAL APPLICATION         | STIPPLE COAT                                                                                                                                                          | BASE COAT                                                                                                                                                             | TOP COAT (preferably with NHL 3.5)                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                  |
|----------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                            | 3 to 5 mm                                                                                                                                                             | 10 to 20 mm                                                                                                                                                           | Scratched 7 to 12 mm                                                                                                                                                                                                                                             | Smoothed or floated 5 to 7 mm (manual only)                                                                                                                                                                                                                      |
|                            |  +  |  +  |  OR  +  |  OR  +  |
|                            | NHL 5 Sand 0/3 mm                                                                                                                                                     | NHL 5 Sand 0/3 mm                                                                                                                                                     | NHL 3.5 NHL 5 Sand 0/2 mm                                                                                                                                                                                                                                        | NHL 3.5 NHL 5 Sand 0/1 mm                                                                                                                                                                                                                                        |
|                            | 2.5 kg/m <sup>2</sup> for 3 to 5 mm                                                                                                                                   | 3.5 to 5 kg/m <sup>2</sup> for 10 mm                                                                                                                                  | 1.5 to 2 kg/m <sup>2</sup> for 5 mm                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                  |
| WAITING TIME BETWEEN COATS | 2 Days                                                                                                                                                                |                                                                                                                                                                       | 7 Days                                                                                                                                                                                                                                                           |                                                                                                                                                                                                                                                                  |

|                                                                                |                                                                                                                                                                                             |                                                                                                                                                                                                                                        |                                                                                                                                                                                                |  |
|--------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| <div>MECHANICAL APPLICATION</div> <div>(Ask Saint-Astier Technical dept)</div> | <div>BASE COAT</div> <div>10 to 15 mm</div> <div><div><div>1</div><div>NHL 5</div></div> + <div><div>1/4</div><div>Cement</div></div> + <div><div>4</div><div>Sand 0/3 mm</div></div></div> | <div>TOP COAT (preferably with NHL 3.5)</div> <div>8 to 12 mm (Scraped, brushed)</div> <div><div><div>1</div><div>NHL 3.5</div></div> OR <div><div>1</div><div>NHL 5</div></div> + <div><div>3</div><div>Sand 0/3 mm</div></div></div> | <div>Trowelled 5 to 7 mm (only manually)</div> <div><div><div>1</div><div>NHL 3.5</div></div> OR <div><div>1</div><div>NHL 5</div></div> + <div><div>3</div><div>Sand 0/2 mm</div></div></div> |  |
|                                                                                | <div>NEW MASONRY, BRICKS OR STONE BLOCKS</div>                                                                                                                                              | <div><div><div>1</div><div>NHL 5</div></div> + <div><div>2</div><div>Sand 0/3 mm</div></div></div>                                                                                                                                     | <div><div><div>1</div><div>NHL 3.5</div></div> OR <div><div>1</div><div>NHL 5</div></div> + <div><div>2,5</div><div>Sand 0/3 mm</div></div></div>                                              |  |
|                                                                                | <div>OLD MASONRY SOFT SUPPORTS AND/OR OLD PLASTERS</div>                                                                                                                                    |                                                                                                                                                                                                                                        |                                                                                                                                                                                                |  |
|                                                                                | <div>ESTIMATED CONSUMPTION</div>                                                                                                                                                            | <div>3.5 kg/m² for 10 mm</div>                                                                                                                                                                                                         |                                                                                                                                                                                                |  |
|                                                                                | <div>WAITING TIME BETWEEN COATS</div>                                                                                                                                                       | <div>At least 7 days per 10 mm applied</div>                                                                                                                                                                                           |                                                                                                                                                                                                |  |

## BEDDING, POINTING, TILING & OTHER APPLICATIONS

|                                  |                                                                            |                                                                                                                                                                                                                                                                 |                           |                                                        |                                                                                                                                                                               |
|----------------------------------|----------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------|--------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| BEDDING, POINTING, TILING, SLABS | Bedding concrete blocks, hollow or solid bricks, hard stone                |  +  +  | LIMECONCRETE              | Lime concrete/screed                                   |  +  |
|                                  | Floors: laying slabs terracotta tiles and flagstones                       |  +                                                                                        | CHIMNEYS                  | Fireplace bricks (concrete, clay), solid bricks, stone |  +  |
|                                  | Bedding and pointing of traditional brick and medium to hard-natural stone |  +                                                                                        | OLD MASONRY CONSOLIDATION | Injection                                              |  +  |
| ABOVE THE ROOF LINE*             | Roof tiles, roof ridge, roof edges, roof connections                       |  +                                                                                        |                           | Grouting                                               |  +  |

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



## 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.



## PERFORMANCE

| ESSENTIAL SPECIFICATION                  | BS-EN 459<br>PERFORMANCE STANDARD | SAINT-ASTIER® NHL 5<br>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                            | ≤ 1 mm                                |
| 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 (cm <sup>2</sup> 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.

## 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.saint-astier.co.uk](http://www.saint-astier.co.uk)

## 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 [www.saint-astier.co.uk](http://www.saint-astier.co.uk)