

EU Norms (EN 459) Mandatory testing program for Natural Hydraulic Limes

POWDERS					
TEST	NORM	EN459 Values	St Astier Values	Frequency	St.Astier Frequency
Fineness	EN196-6	residue by mass 0.09mm/0.2mm $\leq 15\% / \leq 5\%$	5-7%	daily	daily
Free water	EN459-2	NHL2/3.5 ≤ 2	< 2		
		NHL5 ≤ 1	< 1	monthly	monthly
Soundness (Expansion)	EN459-2	≤ 2	< 1	once a day	several times per day
Bulk density Kg/dm ³	EN459-2	NHL20.4-0.8	0.56	monthly	each product batch
		NHL3.50.5-0.9	0.61/0.65		
		NHL50.6-1.0	0.66/0.75		

MORTARS (prepared with standard EU sand/ISO 679 @ 1:1 vol. ratio)					
Penetration	EN459-2	$> 20\text{mm}$	$> 20\text{mm}$	monthly	weekly
		$< 50\text{mm}$	$< 50\text{mm}$		
Setting time	EN459-2	$\geq 1\text{h} / < 15\text{h}$	$> 3\text{h} / < 10\text{h}$	2 per week	2 per week
Air content	EN459-2	≤ 20	≤ 20	monthly	monthly
Compressive Strength	EN459-2	28 days N/mm ²		weekly	continuously
NHL2		2 to 7	2 to 3		
NHL3.5		3.5 to 10	3.5 to 6		
NHL5		5 to 15	5 to 9		
SO ₃ content %	EN196-2				
		3*	0.45/0.65	monthly	continuously
*up to 7% admissible if soundness is demonstrated at 28 days of water curing					
Available Lime	EN459-2	NHL53%	15-20%	weekly	each product batch
	minimum values	NHL3.59%	22-26%		each product batch
		NHL215%	50-55%		each product batch

Other tests regularly performed by the St. Astier Research & Development Dept:

CO₂ contents after each burning to regulate slaking, Tensile strength, Elasticity moduli, Adhesion, Workability (flow table), Whiteness.

For further Guidance, contact your St Astier Distributor.

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