

NHL Renders Diagnostics Chart

St Astier Natural Hydraulic Limes (NHL)

<i>Defect</i>	<i>Causes</i>	<i>Remedies</i>
Shrinkage & Cracking greater than 2mm	General or partial movement of the background or the building.	Check if movement is still active. (Engineer to check). If building stable, repair cracks / areas.
Less than 2mm	Thermal movement. Poor workmanship. Render too thick. Too much water in mix. Over saturated backgrounds. Insufficient setting between coats.	Depending on extent, open out crack and fill with same mortar.
Hairline cracks	Bad preparation of background. Over saturated background. Too much binder. Too many fines in sand. Finishing coat too thick. Too much water in the mix. Rapid drying / lack of protection. Too much sun or wind during curing.	Either apply slurry fill if sound or remove and replace properly.
Loss of Bond	Poor background preparation. Poor suction control. Over saturated background. Background too smooth. Incompatibility with existing background. Insufficient strength in bonding coat. Background movement. Metal corrosion. Salt crystallisation. Excessive or late towelling.	Repair or replace as appropriate. Consolidation by grouting may be considered.
Bulging	Poor background preparation. Incompatibility with existing background. Metal corrosion. Frost damage during curing.	Depending on the extent of damage, either partial repair or total replacement. Neutralise and treat any rusting metal.
Powdering / Friability	De-calcification of render (loss of binder). Poor background preparation. Poor suction control. Rapid evaporation of water during application, (prior to adequate set). Frost damage. Insufficient binder dosage. Variation in surface compaction / finishing. Poor sands.	Partial or total repair with correct mortar applying due protection and following best practice.
Water penetration.	Poor background preparation. Weak mortars. Bad detailing.	Partial repair. Light repairs with several coats of lime wash. Rectify detailing problems. Replace if necessary.

For further Guidance, contact your St Astier Distributor.

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