# TECHNICAL BULLETIN – TB139

**29th July 2024**

## INTRODUCTION & SCOPE

Building restoration is commonplace today and frequently requires refurbishing grease and oil-contaminated surfaces, such as vehicle workshops, for other uses requiring more architectural floor finishes.
This presents a problem since no way is known to fully remove all grease and oil contaminants ingrained over many years of service from the concrete matrix.

By combining appropriate surface preparation and the timely use of ARDEX HydrEpoxy, these surfaces can be reinstated to accommodate a wide variety of architectural finishes.

This bulletin outlines the procedure for preparing grease and oil-contaminated surfaces in readiness for the installation of most other adhesives, coatings, and surface finishes.

## CLEANING THE SURFACE

All heavy surface grease and oil contaminants are removed using industrial degreasers, mops, and rinse water.

The contaminated surfaces are then high-pressure detergent water blasted using as high a nozzle pressure as is possible within the confines of the site—normally 20MPa or 3000 psi is ideal. Surfaces are then high-pressure rinsed using the same nozzle pressure to remove all traces of detergent.

This cleaning aims to remove all surface and immediate subsurface grease and oil contaminants and/or force these contaminants deeper into the concrete matrix. This allows a structural bonding impermeable coating membrane to be applied and achieves a sound bond to the base substrate.

As the surface dries, the grease and oil that have been forced back into the concrete matrix slowly migrate back to the surface, recontaminating the surface and subsurface. It is, therefore, critical that the structural bonding membrane be applied as soon as practically possible following the high-pressure rinsing.

## INSTALLATION OF STRUCTURAL BONDING MEMBRANE SYSTEM

When the high-pressure water rinsing is completed, remove all surface water using a rubber squeegee or similar device.

This water must be disposed of environmentally using a

Immediately apply one coat of ARDEX WPM300 HydrEpoxy thinned with 50% water, using brush or roller application techniques, at a coverage rate of six (6) square meters per litre.

As soon as the diluted ARDEX WPM300 HydrEpoxy has been applied and before it is fully cured (6 – 8 hours), apply a further coat of ARDEX WPM300 HydrEpoxy at a coverage rate not exceeding three (3) square metres per litre.

Allow overnight cure before coating with standard building or paving paints or suitable water-based tile adhesives and at least four (4) days before installing most other coatings. Allow the membrane system to

cure for seven (7) days before overcoating with coatings containing aggressive solvents, and check with ARDEX Technical Services before proceeding.

If a leveling compound was to be applied or if the surface was to be tiled, 300µm sand would need to be broadcast over the wet second coat of ARDEX WPM300 at a rate of 700g/m². Excess sand would be broomed off at 24 hours to reveal a suitable leveling and tiling substrate. Alternately the cured surface of ARDEX WPM300 could be primed with one coat of ARDEX P82 primer at a rate of 8m² per litre.

If bonding impermeable floor coverings such as vinyl sheets, apply a 2 - 3mm layer of a suitable ARDEX smoothing cement, such as ARDEX K15, to all surfaces before installing the impermeable layer. Refer to Technical Bulletins TB006 or TB170 for more details.



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