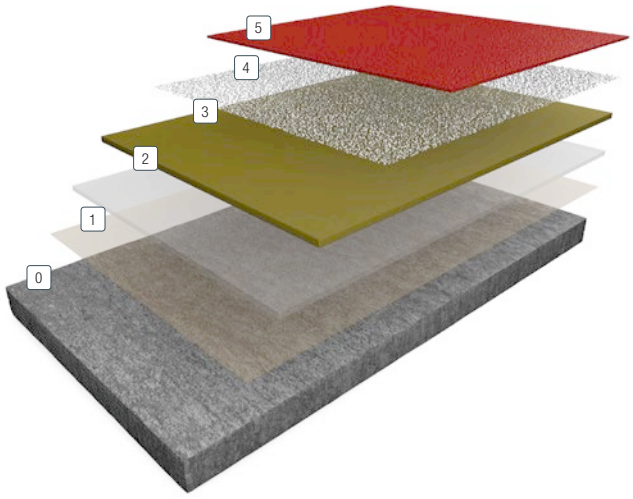
ACRYDUR™ TOPFLOOR TD

METHYL METHACRYLATE (MMA) TOP DECK CAR PARK FLOOR SYSTEM

Acrydur Topfloor TD is a 6 mm thick very fast cure MMA resin flooring system for top deck car parks and similar heavy duty vehicle situations. The finish typically features a flexible membrane with crack bridging properties, and then a base coat with a quartz aggregate scatter and coloured topcoat to create a tough finish suitable for cars and other vehicles. Acrydur Topfloor TD reduces noise from traffic movement and delivers an attractive coloured finish for new projects or refurbishments.

Traffic	Cure to service (hrs)		
	-30ºC	20ºC	30ºC
Light	1-2	1-2	1-2
Designed	3-4	3-4	3-4



0 **Substrate:**

1 **Primer:**
Acrydur PR01 or PR02

2 **Membrane:**
Acrydur ME01 with crack bridging fabric if required

3 **Basecoat:**
Acrydur ME04 slurry using 0.2-0.3 mm silica sand

4 **Broadcast:**
Silica quartz sand

5 **Topcoat:**
Acrydur TC04 or TC05 Colour

BENEFITS

- Very fast cure reducing downtime to a minimum
- Flexibilised crack bridging system for dynamic movement suitability
- Coloured finish
- High chemical resistance
- Reduced tyre squeal and noise
- Slip and skid resistance
- Extremely hard wearing
- Non dusting

SCOPE OF USE

- Top deck car parks
- Baggage handling areas with vehicles
- External vehicle areas and walkways
- Heavy duty plant and traffic areas

TYPICAL PHYSICAL PROPERTIES

Compressive strength	DIN 1164	25 N/mm²
Tensile strength in bending	DIN 1164	15 N/mm²
UV stable	Yes	
FerFa class	Class 5–6	
System thickness	6 mm	
Bond strength	>1.5 Mpa (substrate failure)	
Water permeability Nil	Karsten test (impermeable)	
Slip resistance (for textured quartz finish)	BS 7976-2:2002+A1:2013	>36 wet/dry

SYSTEM COMPOSITION

VOC EC Solvent Emissions Directive

Component	Product	Application	Theoretical consumption
Primer*	Acrydur PR01 or PR02 with optional broadcast of 0.4-0.8 mm silica sand at 300gr/m²	Roller	0.4 kg/m²
Membrane	Acrydur ME01 with crack bridging fabric if required	Squeegee	2.0 kg/m²
Basecoat	Acrydur ME04 with 0.2-0.3 mm silica sand	Squeegee	4.8 kg/m²
Broadcast	Silica quartz scatter	Broadcast	4 kg/m²
Topcoat	Acrydur TC04 or TC05 Colour	Squeegee/ Roller	0.8 kg/m²

* Note: Additional primer may be required for porous surfaces.

APPLICATION GUIDANCE

IMPORTANT INSTALLATION NOTE

Sherwin-Williams materials shall only be installed by approved contractors. The following information is to be used as a guideline for the installation of the system in conjunction with the product data sheets used for the system. Contact Sherwin-Williams Technical Service Department for assistance prior to application. Email: technicale@sherwin.com or Tel: +44 (0)1204 556457.

SUBSTRATE REQUIREMENTS AND SURFACE PREPARATION GENERAL CONSIDERATIONS

Sherwin-Williams flooring systems can be applied to a variety of substrates. Proper surface preparation is required, specific of the substrate type. Concrete is the most common substrate and this document states surface preparation guidance for this specific substrate. Other types of substrate can be covered too. Please contact Sherwin-Williams Technical Service Department prior to starting the project to obtain guidance on surface preparation for specific substrate or condition.

CONCRETE – SUBSTRATE REQUIREMENTS

To achieve the best performance from Acrydur Topfloor TD, substrates must be clean, sound, dry and free of surface laitance with a minimum strength of 25 N/mm².

Ideally substrates should be free from rising damp and water pressure and it is good practice to take a moisture content reading of a concrete substrate, particularly for any new slabs.

If substrates have moisture levels above 75% ERH as per BS8204, or if no damp proof membrane is present then Acrydur PR03 can function as a surface applied damp proof membrane as the primer as advised in with the product data sheet. The number of coats of Acrydur PR03 will be dependent on the moisture content.

CONCRETE – SURFACE PREPARATION

Concrete surfaces should be prepared by vacuum shot-blasting or mechanical abrasion as required to achieve a surface texture which will function as a mechanical key to maximise adhesion of the resin system.

Thoroughly vacuum the surface and any joints to remove all loose dust and debris. Ensure that all preparation is carried out to the edges of slabs, walls etc. to ensure full bonding of the system to a sound surface. Any debris should be recovered from the floor surface and joints etc.

Significant mechanical damage, pitting, and cracks may need to be addressed and repaired using Acrydur RM01/ RM02 prior to the application of the primer; these should be identified by survey.

For recommendations, consult Sherwin-Williams Technical Service Department.

TEMPERATURE

Throughout the application process, substrate temperature ideally should be 5ºC–30ºC and a relative humidity <90% ERH, with a minimum air temperature of 5ºC and no condensation. Do not pre-warm this product as working times will be substantially reduced if materials are warm.

APPLICATION GUIDANCE

IMPORTANT: IT IS CRITICAL TO ADHERE TO THE MIXING INSTRUCTIONS FOR FULL SYSTEM CURE AND PERFORMANCE

PRIMER
ACRYDUR PR01 OR PR02

1. Prior to use, stir the Acrydur PR to obtain an even distribution of the paraffin contained in the product. With pourable mixes, the Acrydur Peroxide hardening powder is the last component to be added in the mix.
2. Pour the appropriate ratio of hardening powder into the container of resin. Mix until the Acrydur Peroxide hardening powder is completely dissolved. The quantity of hardening powder is always related to the amount of resin. Hardening powder must not be added to the reactive resin and resin/filler mix until immediately before application and must always be stirred in and allowed to dissolve in the pure resin. The stirring time will depend on the type and the condition of the mixing equipment used and on the temperature of the material.

Note: See the PR01 and PR02 product data sheets for guidance on hardener powder % addition

3. Acrydur PR primer should be applied evenly by squeegee, roller and brush at a coverage rate of 0.4 kg/m^2 with no puddles. Coverage rate can vary depending upon porosity of the substrate and surface texture.
4. Ideally the primer should be allowed to cure for at least 30 minutes or when the surface has lost tackiness.

Note: An additional application of primer may be required on porous surfaces to ensure a fully sealed surface which has no cavities or pinholes which could trap air. An optional broadcast of 0.4-0.8 mm silica sand at 300gr/m^2 can be also be applied to the primer which can help fill cavities.

MEMBRANE
ACRYDUR ME01

1. Prior to use, stir the Acrydur ME01 to obtain an even distribution of the paraffin contained in the product. With pourable mixes, the Acrydur Peroxide hardening powder is the last component to be added in the mix.
2. Pour the appropriate ratio of hardening powder into the container of resin. Mix until the Acrydur Peroxide hardening powder is completely dissolved. The quantity of hardening powder is always related to the amount of resin. Hardening powder must not be added to the reactive resin and resin/filler mix until immediately before application and must always be stirred in and allowed to dissolve in the pure resin. The stirring time will depend on the type and the condition of the mixing equipment used and on the temperature of the material.

Note: See the ME01 product data sheet for guidance on hardener powder % addition.

3. Acrydur Membrane should be applied evenly by squeegee and roller at a coverage rate of 2 kg/m^2.
4. For enhanced crack bridging performance Acrydur FB01 fabric can be incorporated into Acrydur ME01 to create a re-inforced bandaged membrane.

BASECOAT
ACRYDUR ME04 AND 0.2-0.3 MM SILICA SAND

1. Prior to use, stir the Acrydur ME04 to obtain an even distribution of the paraffin contained in the product. With pourable mixes, the Acrydur Peroxide hardening powder is the last component to be added in the mix.
2. Add the 0.2-0.3 mm silica sand at a ratio of 3.1 kg of powder to 1.7 kg of resin and mix thoroughly to an even consistency.
3. Pour the appropriate ratio of hardening powder into the container of resin. Mix until the Acrydur Peroxide hardening powder is completely dissolved. The quantity of hardening powder is always related to the amount of resin. Hardening powder must not be added to the reactive resin and resin/filler mix until immediately before application and must always be stirred in and allowed to dissolve in the pure resin. The stirring time will depend on the type and the condition of the mixing equipment used and on the temperature of the material.

Note: See the ME04 product data sheet for guidance on hardener powder % addition to the resin.

4. Apply to pre-primed areas as soon after mixing as possible, (delay can result in variation in surface finish, colour and add to application problems).
5. When thoroughly mixed units should be poured evenly over the appropriate area to be covered (monitoring the rate of coverage to ensure correct depth of the screed). Low temperatures and reduced thickness may reduce the flow properties of these products. Work out the mix rapidly and evenly over the area with a notched trowel, pin rake or similar to the appropriate thickness. Do not re-roll later. Applied at 4.8 kg/m^2 slurry unit achieves around 3-4 mm thickness on a good surface.
6. As soon as an even finish is achieved with the application of the ME04 slurry fully scatter the surface consistently with silica quartz aggregate at a rate of 4 kg/m^2. The quartz used should be either 0.4-0.8 mm or 0.7-1.2 mm in size.
7. Allow the Acrydur to cure for at least 30 minutes and when tack free any excess quartz should be removed. There should now be a consistent even textured surface.

TOPCOAT
ACRYDUR TC04 OR TC05 COLOUR

1. Prior to use, stir the Acrydur TC to obtain an even distribution of the paraffin contained in the product. With pourable mixes, the Acrydur Peroxide hardening powder is the last component to be added in the mix.
2. For pigmentation usually 10% of Acrydur Pigment Powder is added. This should be dispersed first with the same quantity of resin and once an even homogenous mix is achieved the remaining resin can be added prior to adding the Acrydur RC hardening powder.
3. Pour the appropriate ratio of hardening powder into the container of resin. Mix until the Acrydur Peroxide hardening powder is completely dissolved. The quantity of hardening powder is always related to the amount of resin. Hardening powder must not be added to the reactive resin and resin until immediately before application and must always be stirred in and allowed to dissolve in the pure resin. The stirring time will depend on the type and the condition of the mixing equipment used and on the temperature of the material.

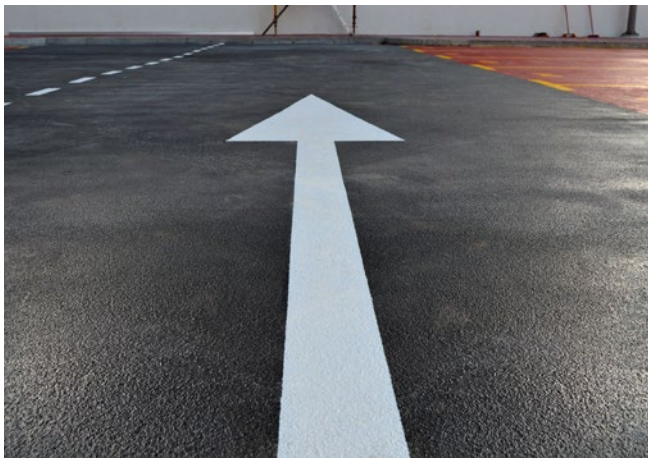
Note: See the TC04 product data sheet for guidance on hardener powder % addition

4. Apply by roller and brush at a rate of 0.8 kg/m^2, evenly, with no puddles. Acrydur TC04 can be initially spread by squeegee.

JOINTS

1. Any functioning joints in the subfloor should be continued through the resin flooring system and filled with
2. Epo-Flex VJ or a similar jointing compound. The spacing and type of joints should be determined prior to the resin floor system being installed.
3. Mix Epo-Flex VJ Part A (base) with Epo-Flex VJ Part B (hardener). These units are in pre-weighed containers.
4. Mix using a low speed mixer and paddle (300–400 rpm) for 2–3 minutes, until a uniform mixed product is obtained.
5. Apply the Epo-Flex VJ immediately to the prepared and cut joints with a knife to a consistent smooth finish.

Note: Cure times are extended at low temperatures.



ACRYDUR TOPFLOOR TD
FINISHED WORKING SYSTEM

CLEAN UP
Cleaning of mixing and application equipment immediately after use is recommended. For details see the Product Data Sheet.

SAFETY
Refer to the SDS sheet before use. All applicable laws and particular plant safety guidelines must be followed during the handling and installation and cure of these materials.

Safe and proper disposal of excess materials shall be done in accordance with regional legislation.

MATERIAL STORAGE
Store materials in a temperature controlled environment (10ºC–30ºC) and out of direct sunlight.

Keep resins, hardening powder, and solvents separated from each other and away from sources of ignition.

MAINTENANCE AND CLEANING
Sherwin-Williams recommends a floor cleaning regime is used for maximum performance and aesthetics of the resin floor, using adequate cleaners.

Where required floor scrubbers, rotary washers or power washing can be operated.

All surfaces should be thoroughly rinsed with clean water after the use of cleaners.

If more information is requested contact your local Sherwin-Williams representative.

DISCLAIMER
The information and recommendations set forth in this document are based upon tests conducted by or on behalf of The Sherwin-Williams Company. Such information and recommendations set forth herein are subject to change and pertain to the product(s) offered at the time of publication. Published technical data and instructions are subject to change without notice.

Consult technicale@sherwin.com to obtain the most recent product data information and application instructions.

WARRANTY
The Sherwin-Williams Company warrants our products to be free of manufacturing defects in accord with applicable Sherwin-Williams quality control procedures. Liability for products proven defective, if any, is limited to replacement of the defective product or the refund of the purchase price paid for the defective product as determined by Sherwin-Williams. No warranty or guarantee of any kind is made by Sherwin-Williams, expressed or implied, statutory, by operation of law or otherwise including merchantability and fitness for a particular purpose.

SHERWIN WILLIAMS®

United Kingdom:
+44 (0)1204 556420
flooring.enquiries@sherwin.com

Scandinavia:
+45 70213888
emea.pm.exportsales@sherwin.com

Italy:
+39 327 173 2931
emea.pm.Italy@sherwin.com

Rest of Europe and Africa:
+44 (0)1204 556454
emea.pm.exportsales@sherwin.com

Middle East:
+971 4 8840200
sales.me@sherwin.com

India:
+91 9871900878
pmsales.india@sherwin.com

resinflooring.sherwin.eu
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