



# PRODUCT DATA SHEET

## Sikalastic® HLM 5000 R

(formerly MSeal HLM 5000 R)

Liquid, cold-applied waterproofing membrane system

### PRODUCT DESCRIPTION

Sikalastic® HLM 5000 R is a single component, moisture curing, polyurethane-based waterproofing membrane that cures by reaction with atmospheric moisture to form a tough membrane. Sikalastic® HLM 5000 R protects structures from water penetration while remaining flexible to handle the nominal expansion and contraction of substrates.

### WHERE TO USE

- Waterproofing exterior concrete & plywood
- Exterior, below grade, on concrete and masonry
- Above grade, between two courses of concrete or masonry and cavity walls
- Balconies, planter boxes & parking garages
- Podiums and green roofs

### CHARACTERISTICS / ADVANTAGES

- Waterproof – Protects structure from water penetration
- Elastomeric – Permits nominal expansion and contraction of the structure
- Low temperature Flexibility – Wide service temperature, suitable for all climates
- Single component – No complex mixing & easy to use
- Cold-applied & seamless – Eliminates lapping, seaming and precutting
- Available in two (2) grades – Easy application on vertical and horizontal surfaces

### PRODUCT INFORMATION

CSC MasterFormat®	07 14 16   COLD FLUID-APPLIED WATERPROOFING		
Packaging	22.5 kg pail		
Shelf Life	6 months from date of production		
Storage Conditions	Store out of direct sunlight, clear of the ground on pallets protected from rainfall.		
Appearance / Colour	Liquid / black		
Density	1.5 +/- 0.05		
Viscosity	<b>Self-Levelling Grade</b>	<b>Roller Grade</b>	(23 °C)
	5,000 cps	15,000 cps	

## TECHNICAL INFORMATION

<b>Tensile Strength</b>	> 2.0 MPa	(ASTM D412)
	<b>Elongation</b>	
	> 500 %	(ASTM D412)
<b>Pull-Off Strength</b>	> 1 MPa	(ASTM C794)
<b>Tear Strength</b>	> 15 N/mm	(ASTM D624)
<b>Service Temperature</b>	Minimum	-35 °C
	Maximum	+50 °C
<b>Low Temperature Flexibility</b>	-35 °C	(ASTM D1970)
<b>Water Absorption</b>	< 5 %	(ASTM D570)
<b>Permeability to Water Vapour</b>	1.5 (Perms)	(ASTM E96)
<b>Artificial Ageing</b>	Passes 6 mm Extensibility after heat aging	(ASTM C1522)

## APPLICATION INFORMATION

<b>Yield</b>	10m <sup>2</sup> per 22.5 kg pail at 1.4 mm ~1.6 mm w.f.t. 10m <sup>2</sup> per 22.5 kg pail at 1.2 mm ~ 1.4 mm d.f.t.
<b>Ambient Air Temperature</b>	between +4 °C and +32 °C (40 °F and 90 °F).
<b>Tack-free time</b>	< 12 hours @ 23 °C
<b>Drying time</b>	< 24 hours @ 23 °C

## BASIS OF PRODUCT DATA

Product properties are typically averages, obtained under laboratory conditions. Reasonable variations can be expected on-site due to local factors, including environment, preparation, application, curing and test methods.

## LIMITATIONS

Proper application is the responsibility of the user. Field visits by Sika personnel are for the purpose of making technical recommendations only and not for supervising or providing quality control on the jobsite.

- Temperatures influence viscosity and handling characteristics of Sikalastic® HLM 5000 R: heat increases and cold decreases the flow. Keep Sikalastic® HLM 5000 R cool in hot weather and warm in cold weather.
- Avoid application when inclement weather is present or imminent.
- Do not apply to reinforcing bars or to wet or contaminated surfaces.
- Do not directly heat containers with flame, stove, hot

plate or oven.

- Patch all voids and deep depressions in substrates with appropriate patching material before applying Sikalastic® HLM 5000 R.
- Use Sikalastic® HLM 5000 R under thin-set tile applications.
- Before applying Sikalastic® HLM 5000 R, dam all drains and drain openings.
- Carefully work material over irregular concrete to avoid pinholes and holidays.
- Protect Sikalastic® HLM 5000 R coated surfaces from puncture with protection board until required topping or backfill is placed.
- Not intended as an exposed or wearing surface.
- Do not use where a solvent odour is objectionable (ex. near areas where food preparation or processing occur during the application).
- Specify wet or paper curing for concrete to be coated with Sikalastic® HLM 5000 R; avoid using liquid curing compounds.
- In horizontal applications concrete must be sloped to drain to avoid ponding water on the surface of Sikalastic® HLM 5000 R.
- When using drainage mat directly over Sikalastic® HLM 5000 R, a layer of 6 mil polyethylene sheeting should be used between the Sikalastic® HLM 5000 R and the

drainage mat.

## ENVIRONMENT, HEALTH & SAFETY

User must read the most recent corresponding Safety Data Sheets (SDS) before using any products. The SDS provides information and advice on the safe handling, storage and disposal of chemical products and contains physical, ecological, toxicological and other safety-related data.

## APPLICATION INSTRUCTIONS

### SUBSTRATE PREPARATION

All concrete deck surfaces should be lightly steel troweled to a flat, uniform surface. A light broom finish is acceptable. New concrete must be properly water cured at least 14 days. Membrane curing compounds must be mechanically removed.

**For extremely porous blocks:** Prime with a coat of Sikalastic® HLM 5000 R diluted up to 5 % with xylene. Remove dust, dirt and other contaminants just before or during application. Surfaces must be dry at the time of application. Air-void pockmarks or honeycombs must be opened up to allow Sikalastic® HLM 5000 R to fill the cavities completely.

### SURFACE PREPARATION

#### Prestripping

Before applying the final membrane, all joints, cracks and openings around protrusions must be sealed by caulking or pre-stripping (a preliminary coating of Sikalastic® HLM 5000 R applied with a trowel or stiff-bristled brush). Allow to dry overnight before applying final membrane. When the final membrane is applied, the overall thickness over joints and cracks, at coves and around penetrations should be approximately 2.5 mm on the standard system.

#### Static joints and cracks

Joints and cracks less than 1.6 mm should be filled by pre-stripping. Apply material so it both fills and overlaps the joint or crack to a width of 100 mm on each side.

#### Working or expansion joints

All joints over 3 mm must be sealed with a urethane sealant. Any working joint less than 3 mm should be routed to a minimum of 6 mm and filled with a sealant. Prevent the waterproofing membrane from adhering to the joint sealant by applying a coat of wax or bond breaker tape over the cured sealant and then pre-stripping.

#### Uncoated metal surfaces

Remove dust, debris, and any other contaminants from vent, drain, pipe and post penetrations, reglets and other metal surfaces. Clean surfaces to near white to SA

2.5 and prime immediately with Sikalastic® P 691. Provide appropriate cant with Sika® sealant to eliminate 90 ° angles.

### APPLICATION

Select the grade of Sikalastic® HLM 5000 R that best meets individual job requirements. A test application is always recommended before proceeding with entire application.

#### Horizontal applications:

Empty contents of pail and spread immediately to ensure workability. Best results are obtained by marking off 10 m<sup>2</sup> areas and evenly spreading the contents of 22.5 kg unit with a rubber-edged notched squeegee.

#### Vertical applications:

Apply by trowel/roller at a rate of 0.4 m<sup>2</sup>/kg. Verify the applied thickness with a wet film gauge as the work progresses. The integrity of the cured membrane on a horizontal surface is verified by damming the entire area and flooding with water to a depth of 50 mm and allowing the water to stand for 24 – 48 hours. Visually inspect the bottom surface to check for any water penetration. If repairs are necessary, the area should be drained and allowed to dry before reapplying Sikalastic® HLM 5000 R. After application, the area should be tested for membrane integrity

### CURING TREATMENT

Appreciable properties develop within 24–48 hours at 24 °C and 50 % relative humidity. Protect Sikalastic® HLM 5000 R from traffic during curing.

#### Drainage and protection

For protection during backfill and where hydrostatic pressure is anticipated, use a suitable geotextile to divert the water.

For protection during backfill only, install protection board as soon as possible following cure of Sikalastic® HLM 5000 R.

## LOCAL RESTRICTIONS

Note that as a result of specific local regulations the declared data and recommended uses for this product may vary from country to country. Consult the local Product Data Sheet for exact product data and uses.

## LEGAL NOTES

The information, and in particular, the recommendations relating to the application and end-use of Sika products, are given in good faith based on Sika's current knowledge and experience of the products when properly stored, handled and applied under normal conditions in accordance with Sika's

recommendations. In practice, the differences in materials, substrates and actual site conditions are such that no warranty in respect of merchantability or of fitness for a particular purpose, nor any liability arising out of any legal relationship whatsoever, can be inferred either from this information, or from any recommendations, or from any other advice offered. The information contained herein does not relieve the user of the products from testing them for the intended application and purpose. The proprietary rights of third parties must be observed. All orders are accepted subject to our current terms of sale and delivery. Users must always refer to the most recent issue of the local Product Data Sheet for the product concerned, copies of which will be supplied on request or may be downloaded from our website at: [www.sika.ca](http://www.sika.ca)

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