



# PRODUCT DATA SHEET

## Sikafloor® Duochem LM

### EPOXY-BASED AND HIGH-SOLIDS PAINT FOR SAFETY LINE MARKING

#### PRODUCT DESCRIPTION

Sikafloor® Duochem LM is a two-component, solid colour, high solids, finely textured and satin finish epoxy paint. It is specifically formulated to paint safety traffic lines in bright colours.

#### WHERE TO USE

Sikafloor® Duochem LM may only be used by experienced professionals.

- Suitable to create safety lines commonly found in industrial facilities, commercial buildings, warehouse premises and other similar interior applications.
- To delineate walkways, drive lanes, work stations, storage areas, caution or hazardous areas.

#### CHARACTERISTICS / ADVANTAGES

- High solids content, low VOC, low odour.
- General service, broad spectrum chemical resistance.
- Durable wear resistant properties; good mechanical and abrasion resistance.
- Easy to apply and maintain, opaque lines in two coats.
- High build, thixotropic formulation to prevent bleeding under tape lines.

#### APPROVALS / CERTIFICATES

- Meets CFIA and USDA requirements for use in food plants.

#### PRODUCT INFORMATION

CSC MasterFormat®	09 67 00   FLUID-APPLIED FLOORING	
Packaging	3.78 L (1 US gal.) and 18.9 L (5 US gal.) units	
Shelf Life	2 years in original unopened packaging	
Storage Conditions	Store dry between 5 °C to 32 °C (41 °F to 89 °F)	
Appearance / Colour	Safety Yellow / Satin finish - finely textured (special colours available on request)	
Solid content by weight	~96 %	
Solid content by volume	~93 %	
Volatile organic compound (VOC) content	~61 g/L	
Pull-Off Strength	> 2.4 MPa (> 350 psi) (100% concrete failure)	(ASTM D7234)

## APPLICATION INFORMATION

<b>Mixing Ratio</b>	A: B = 4:1 by volume		
<b>Consumption</b>	7.1 m <sup>2</sup> /L (290 ft <sup>2</sup> /US gal.) per coat at 5.5 mil w.f.t. (minimum two coats)		
	Actual coverage rates and material consumption will depend upon porosity and profile of substrates. Allowance must be also made for variation in film thickness or number of coats required to achieve opacity with light (i.e. white) or bright colours (i.e. reds and yellows) on dark substrates. Test sections are recommended to establish correct coverage.		
<b>Product Temperature</b>	Condition products between 18 °C to 24 °C (65 °F to 75 °F)		
<b>Ambient Air Temperature</b>	Minimum 10 °C (50 °F) Maximum 30 °C (86 °F)		
<b>Relative Air Humidity</b>	Maximum 85% (during application and curing)		
<b>Dew Point</b>	Substrate must be at least 3 °C (5 °F) above the dew point to reduce the risk of condensation, which may lead to adhesion failure or “blushing” on the floor finish. Be aware that the substrate temperature may be lower than the ambient temperature.		
<b>Substrate Temperature</b>	Minimum 10 °C (50 °F) Maximum 30 °C (86 °F). Mixing and application attempted at material, ambient and/or substrate temperature conditions less than 18 °C (65 °F) will result in a decrease in product workability and slower cure rates. Do not apply while ambient and substrate temperatures are rising, as pinholes may occur. Ensure there is no vapour drive at the time of application. Refer to ASTM D4263, may be used for a visual indication of vapour drive.		
<b>Substrate Moisture Content</b>	Moisture content of concrete substrate must be ≤ 4% (pbw – part by weight) as measured with a Tramex® CME/CMExpert type concrete moisture meter on mechanically-prepared surface according to this product data sheet (preparation to ICRI / CSP 3 - 4). If moisture content of concrete substrate exceeds 4% (pbw – part by weight) as measured with Tramex® CME/CMExpert type concrete moisture meter, use Sikafloor®-1610.		
<b>Pot Life</b>	<b>Material Temperature</b> 23 °C (73 °F)	<b>Time</b> ~45 minutes	
<b>Curing Time</b>	<b>Substrate Temperature</b> 23 °C (73 °F)	<b>Tack-free</b> ~6 hours	<b>Full Cure Chemical Exposure</b> ~7 days
	Curing times will vary according to ambient air and substrate temperatures and relative humidity. Freshly applied material should be protected from dampness, condensation and water for at least 24 hours. Mechanical, chemical and physical properties will be fully achieved at full cure.		
<b>Waiting Time / Overcoating</b>	<b>Substrate Temperature</b> 23 °C (73 °F)	<b>Minimum</b> ~4 hours	<b>Maximum</b> ~18 hours
	<b>Note:</b> If the Waiting/ Recoat time has passed the previous coat must be lightly sanded, to remove all gloss; vacuum cleaning and solvent wiping will be necessary to remove all traces of dust. The surface should be a uniform dullness, with no gloss present after clean-up and before applying the next coat.		

## 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.

Properties tested at 23 °C (73 °F) and 50% R.H. unless stated otherwise.

## LIMITATIONS

- Prior to application, measure and confirm Substrate Moisture Content, Ambient Relative Humidity, Ambient and Surface Temperature and Dew Point. During installation, confirm and record above values at least once every three (3) hours, or more frequently whenever conditions change (e.g. Ambient Temperature rise/fall, Relative Humidity increase/decrease, etc.).
- Do not apply Sikafloor® to concrete substrate containing aggregates susceptible to ASR (Alkali Silica Reaction) due to risk of natural alkali redistribution below the Sikafloor® product after application. If concrete substrate has or is suspected to have ASR (Alkali Silica Reaction) present, do not proceed. Consult with design professional prior to use.
- Any aggregate used with Sikafloor® systems must be non-reactive and oven dried.
- This product is not designed for negative side waterproofing.
- Typically, not recommended for exterior slabs on grade where freeze/thaw conditions may exist.
- Will discolour over time when exposed to sunlight (UV) and under certain artificial lighting conditions.
- Do not apply to substrates exposed to extreme thermal shock.
- Direct-fired gas or kerosene heaters produce by-products that can have adverse effects on the curing product. To avoid this occurrence, heaters must be exhausted to the exterior of the building to avoid defects such as amine blush, whitening, loss of adhesion or other surface deficiencies.
- Apply product to dry, clean, properly cured and prepared surfaces in areas where dust is no longer generated by construction activities such that airborne particles will not reduce bond of paint.

## 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.

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## SURFACE PREPARATION

### Concrete (New and Existing)

The concrete surface must be clean and sound. Remove any dust, laitance, grease, oil, dirt, curing agents, impregnations, wax, foreign matter, coatings and detritus from the surface by appropriate mechanical means, in order to achieve a profile equivalent to ICRI / CSP 2 - 3 for floors. The compressive strength of the concrete substrate should be at least 25 MPa (3625 psi) at 28 days and at least 1.5 MPa (218 psi) in tension at the time of application of Sikafloor® Duochem LM.

### Existing Epoxy Coatings

When line-marking existing paints, compatibility and adhesion testing is recommended and existing paint must be acknowledged as determining the adhesion and performance of all subsequently applied materials.

Abrade existing coating surface to remove gloss, vacuum to remove dust and wipe clean with a cloth dampened with Sika® Epoxy Cleaner. The surface should be a uniform dullness, with no gloss present after clean-up and before applying Sikafloor® Duochem LM.

## MIXING

### Mixing Ratio - A:B = 4:1 by volume

Do not hand mix Sikafloor® materials. Mechanically mix only.

Pre-mix each component separately to ensure product uniformity. Empty component B in the correct mix ratio to component A. Mix the combined components for at least three (3) minutes, using a low-speed drill (300 - 450 rpm) to minimize entrapping air. Use an *Exomixer*® type mixing paddle (recommended model) suited to the volume of the mixing container. During the mixing operation, scrape down the sides and bottom of the container with a flat or straight edge trowel at least once, to ensure complete mixing. When completely mixed, Sikafloor® Duochem LM should be uniform in colour and consistency.

Mix only that quantity which can be used within its pot life at actual field temperature.

## APPLICATION

Sikafloor® Duochem LM can be applied by brush, roller or spray equipment, whichever is the most suitable to the surfaces to be painted. For spray application, contact spray equipment specialists to determine suitable equipment and for application advice (thinning maybe required) contact Sika Canada.

**NOTE:** If time between coats exceeds 18 hours at 23 °C (73 °F), abrade surface to remove gloss, vacuum to remove dust and wipe clean with a cloth dampened with Sika® Epoxy Cleaner. The surface should be a uniform dullness, with no gloss present after clean-up and before applying the next coat.

## CLEAN UP

Clean all tools and equipment with Sika® Epoxy Cleaner. Once hardened, product can only be removed mechanically.

## 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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### **Other locations**

Boisbriand (Quebec)  
Brantford; Cambridge;  
Sudbury; Toronto (Ontario)  
Edmonton (Alberta)  
Surrey (British Columbia)

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