Technical Datasheet

DUROFLOOR-SLF

Two-component, self-leveling epoxy flooring

Description

DUROFLOOR-SLF is a two-component, colored, self-leveling epoxy system offering high strength and abrasion resistance. It is resistant to organic and inorganic acids, alkalis, petroleum products, waste, water, seawater, and numerous solvents. It is resistant to temperatures ranging from -30°C to +100°C in dry loading and up to +60°C in wet loading.
Certified according to EN 1504-2 and classified as coating for surface protection of concrete. Also certified according to EN 13813 and classified as SR-B2,0-AR0,5-IR4. CE marked.
DUROFLOOR-SLF has received an Environmental Product Declaration (EPD) following an assessment of its life-cycle environmental impacts. Registration No: EPD-IES-0016840, The International EPD® System.

Fields of application

DUROFLOOR-SLF is used as a pourable, self-leveling floor coating on cement-based floors requiring high mechanical strength or chemical resistance.
Suitable for industrial facilities, warehouses, shopping malls, supermarkets, hotels, parking garages, heavy-traffic areas, gas stations, auto repair shops, slaughterhouses, laboratories, hospitals, wineries, canning factories, etc.
It complies with LEED requirements (Rule 1113 – SCAQMD) regarding Volatile Organic Compound (VOC) Limits, categorized as Industrial Maintenance (IM) coatings, Code 19, VOC limit: < 100 g/l.

Technical data

Base:	two-component epoxy resin
Colors:	RAL 7032 (pebble grey) RAL 7035 (light grey) RAL 7040 (window grey) other colors upon order
Solid content:	~ 100%
Mixing ratio (A:B):	100:24 by weight
Viscosity (A+B):	1,400 mPa·s (+23°C)
Density (A+B):	1.40 kg/l
Mixing ratio of DUROFLOOR-SLF (A+B): M32 quartz sand:	1:1 by weight
Pot life:	~ 25 min (+20°C)
Density (A+B+M32 quartz sand):	1.75 kg/l
Viscosity (A+B+M32 quartz sand):	~10,000 mPa (+23°C)
Water absorption: (ASTM D 570)	0.25% w/w after 24 h
Reaction to fire (EN 13501-1):	B_{fl} - s1*
Minimum hardening temperature:	+8°C
Hardness according to SHORE D:	80
Walkability:	after 24 h (+23°C)
Recoat time:	within 24 h (+23°C)
Final strength:	after 7 days (+23°C)
Abrasion resistance: (ASTM D 4060, TABER TEST, CS 10/1000/1000)	40 mg (with M32 quartz sand, 1:1 ratio by weight)
Abrasion resistance: (EN 13892-4)	< 50 μm
Compressive strength: (EN 13892-2)	≥ 45 N/mm^2
Flexural strength: (EN 13892-2)	≥ 20 N/mm^2
Adhesion strength:	≥ 3 N/mm^2

* Report No: 24/32301366, APPLUS Laboratories.

Cleaning of tools:
Tools should be cleaned with SM-27 solvent immediately after use.

Directions for use

1. Substrate preparation

The flooring surface should be:

- Dry and stable.
- Free of materials that might impair bonding, e.g. dust, loose particles, grease, etc.
- Protected from underneath moisture attack.

DUROFLOOR-SLF

It should also meet the following requirements:

Concrete quality:	at least C20/25
Cement screed quality:	cement content 350 kg/m^3
Age:	at least 28 days
Moisture content:	< 4%

Depending on the nature of the substrate, it should be prepared by brushing, grinding, sandblasting, water blasting, shot blasting, etc. Following this, the surface should be cleaned from dust with a high-suction vacuum cleaner.

2. Priming

The surface is primed with DUROFLOOR-PSF or DUROPRIMER epoxy primers with a consumption of 200-300 g/m^2 or with DUROPRIMER-PRO epoxy primer with a consumption of 250-400 g/m^2.
After the primer has dried, any existing imperfections (cracks, holes, etc.) should be filled with DUROFLOOR-PSF or DUROPRIMER-PRO mixed with 0.1-0.4 mm particle size quartz sand (or M32 sand) or 0-0.4 mm particle size quartz sand (or Q35 sand) at a ratio of 1:2 up to 1:3 by weight.
DUROFLOOR-SLF should be applied within 24 h from priming.
In case DUROFLOOR-SLF is to be applied after the first 24 h, quartz sand of 0.1-0.4 mm particle size (or M32 sand) or 0.3-0.8 mm particle size should be spread on the surface while the primer is still fresh to ensure good bonding.
After the primer has hardened, any loose grains should be removed with a high-suction vacuum cleaner.

Wet substrate

If the product is intended to be applied to a wet (moisture content > 4%) or fresh concrete floor (3-28 days), then it should be primed with the two-component epoxy primer DUROPRIMER-SG.

3. Mixing of the components

Components A (resin) and B (hardener) are packaged in two separate containers, at the correct prefixed mixing ratio by weight. Before mixing, component A is stirred mechanically for 1 min.

Then, all of comp. B is added to comp. A and the two components are mixed continuously for about 3 min with a low-speed mixer (300 rpm) until a uniform mix is obtained. It is important to thoroughly stir the mixture near the sides and bottom of the container to achieve uniform dispersion of the hardener.
Next, quartz sand of 0.1-0.4 mm particle size (or M32 sand) is slowly added to the mixture under stirring, at a 1:1 ratio by weight [epoxy resin (A+B):sand]. Mixing should continue for about 3 min until the resin mortar is fully homogeneous.

4. Application – Consumption

Depending on the required finish, there are two cases of application:

a) Smooth finish

The resin mortar is poured on the floor and spread (dragged) with a notched trowel at a thickness of 2-3 mm.
Consumption of DUROFLOOR-SLF (A+B):
0.85 kg/m^2/mm.
Consumption of quartz sand: 0.85 kg/m^2/mm.

The self-leveling layer should be rolled with a special spiked roller to help entrapped air escape and prevent bubbles.

b) Slip-resistant finish

First, the resin mortar is applied in the same way as in the smooth finish case.
On the still fresh layer, quartz sand (Ø 0.1-0.4 mm or 0.3-0.8 mm) is spread, depending on the slip-resistance required.
Consumption of quartz sand: approx. 3 kg/m^2.

After DUROFLOOR-SLF has hardened, any loose grains should be removed with a high-suction vacuum cleaner.
Finally, a finishing sealing layer using DUROFLOOR-11 is applied by roller.
Consumption: 400-600 g/m^2.

Packaging

DUROFLOOR-SLF is supplied in 20 kg containers (A+B), with components A and B at a fixed ratio by weight.
M32 quartz sand is supplied in 25 kg bags.

The technical information and instructions supplied in this datasheet are based on the knowledge and experience of the Department of Research and Development of our company and on results from long-term applications of the product in practice. The recommendations and suggestions referring to the use of the product are provided without guarantee, since site conditions during the applications are beyond the control of our company. Therefore, the user is responsible for confirming that the chosen product is suitable for the envisaged application. The present edition of this technical datasheet automatically cancels any previous one concerning the same product. | Edition: 25.09.2025

DUROFLOOR-SLF

Shelf life – Storage

12 months from production date if stored in original sealed packaging, in areas protected from humidity and direct sunlight. Recommended storage temperature between +5°C and +35°C.

Remarks

- The workability of epoxy materials is affected by temperature. The ideal temperature of application is between +15°C and +25°C, for which the product obtains optimal workability and curing time. Room temperature below +15°C will expand the curing time, while temperatures above +30°C will reduce it. It is recommended to mildly preheat the product in the winter and store the product in a cool room before application in the summer.
- Bonding between successive layers may be severely affected by moisture or dirt trapped between them.
- Epoxy layers should be protected from moisture for 4-6 hours after application. Moisture may whiten the surface or/and make it sticky. It may also disturb hardening. Faded or sticky layers in parts of the surface should be removed by grinding or milling and laid again.
- In case recoat time (between successive layers) is longer than predicted or in case old floors are to be overlaid again, the surface should be thoroughly cleaned and ground before applying the new layer.
- In case DUROFLOOR-SLF is to be used on vertical or inclined surfaces, an epoxy flow regulator should be added at a ratio of 0.5% by weight.
- After hardening, DUROFLOOR-SLF is totally safe for health.
- Please consult the directions for safe use and precautions written on the packaging before use.

Volatile Organic Compounds (VOCs)

According to Directive 2004/42/CE (Annex II, table A), the maximum allowed VOC content for the product subcategory j, type SB, is 500 g/l (2010) for the ready-to-use product.
The ready-to-use product DUROFLOOR-SLF contains < 500 g/l VOC.

The technical information and instructions supplied in this datasheet are based on the knowledge and experience of the Department of Research and Development of our company and on results from long-term applications of the product in practice. The recommendations and suggestions referring to the use of the product are provided without guarantee, since site conditions during the applications are beyond the control of our company. Therefore, the user is responsible for confirming that the chosen product is suitable for the envisaged application. The present edition of this technical datasheet automatically cancels any previous one concerning the same product. | Edition: 25.09.2025

DUROFLOOR-SLF

CE

ISOMAT S.A.
17th km Thessaloniki – Ag. Athanasios
P.O. BOX 1043, 570 03 Ag. Athanasios, Greece

24

EN 13813 SR-B2,0-AR0,5-IR4

Synthetic Resin screed material for use internally in buildings

DoP No.: DUROFLOOR-SLF / 1887

Reaction to fire: Bfl – s1

Release of corrosive substances: SR

Water permeability: NPD

Wear resistance: AR0,5

Bond strength: B2,0

Impact resistance: IR4

Sound insulation: NPD

Sound absorption: NPD

Thermal resistance: NPD

Chemical resistance: NPD

CE

ISOMAT S.A.
17th km Thessaloniki – Ag. Athanasios
P.O. BOX 1043, 570 03 Ag Athanasios, Greece

24

DoP No.: DUROFLOOR-SLF / 1888

EN 1504-2

Surface protection products

Coating

Water vapor permeability: Class I (permeable)

Capillary absorption: w < 0,1 kg/m^2·h$^{0.5}$

Adhesion: ≥ 2,0 MPa

Reaction to fire: B_{fl} – s1

Dangerous substances comply with 5.3

ISOMAT S.A.
BUILDING CHEMICALS, MORTARS & PAINTS
HEADQUARTERS – THESSALONIKI, GREECE
17th km Thessaloniki – Ag. Athanasios Road
P.O. BOX 1043, 570 03 Ag. Athanasios, Greece
T +30 2310 576000
www.isomat.eu e-mail: support@isomat.eu

The technical information and instructions supplied in this datasheet are based on the knowledge and experience of the Department of Research and Development of our company and on results from long-term applications of the product in practice. The recommendations and suggestions referring to the use of the product are provided without guarantee, since site conditions during the applications are beyond the control of our company. Therefore, the user is responsible for confirming that the chosen product is suitable for the envisaged application. The present edition of this technical datasheet automatically cancels any previous one concerning the same product. | Edition: 25.09.2025