



# TECHNICAL DATA SHEET

## AMERIN® D-2F

Primer for coatings used in food industry

### 1. Description:

Component A is a modified solvent-free epoxy resin

Component B is a low-viscosity, cycloaliphatic polyamine based hardener

### 2. Characteristics:

✓ certified for food industry

✓ outstanding quality

✓ wide field of application

✓ excellent general features

✓ excellent mechanical resistance

✓ excellent resistance to water, salts, alkalies, fuel and oil,

✓ very good general chemical-resistance

✓ excellent wetting of quartz sand

✓ dry heat resistance for short term: - 30 C° to +105 C°, long term up to +70 C°

✓ wet heat resistance for short term: + 60 C°, long term +50 C°

### 3. Areas of use:

- as primer of epoxy systems on concrete and cement estrich
- diluted with AMERIN® H-1 thinner highly recommended for impregnating floors and walls of concrete containers used for dry food (grains, potatoe, vegetables)
- filled with quartz sand for making levelling mortar and epoxy concrete of high strength
- in two layers as thin coating for concrete
- as an adhesive of concrete to concrete, concrete to metal, for repairing voids in concrete, for crack repair
- it can be used as a primer for the polyurethane based products if scattered with quartz sand for the firm adhesion before the application of the polyurethane coating and after the full curing time (min 24 hours at 20 °C)

### 4. Technical data:

#### Mixing ratio:

AMERIN® D-2F component A 3 parts by mass (kg)

AMERIN® D-2F component B 1 parts by mass (kg)



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	component „A”	component „B”	Mixture
<b>Appearance</b>	slightly yellowish, clear, transparent liquid	slightly yellowish, clear, transparent liquid	
<b>Density, at 20 C°, g/cm<sup>3</sup></b>	1,11-1,15	0,94-0,98	1,06-1,10
<b>Viscosity at 25 C°, mPas</b>	700-1200	40-80	500-900

	The mixture
<b>Gel time 100 g, at 25 C°, min</b>	30-60
<b>Pot life at 20 C°, min.</b>	appr. 30
<b>Minimum curing temperature, C°</b>	+ 5
<b>Minimum temperature of hardening as a coating oC</b>	+ 8*
<b>Suggested temperature during application oC</b>	+ 15 - + 20
<b>Suggested relative humidity during application, %:</b>	max.85
<b>Overcoating time at 20 C°, hours</b>	12-24
<b>Resistant to foot traffic at 20 C°, after./ hours</b>	24
<b>Resistant to mechanical loading at 20 C°, after/ days</b>	3
<b>Time of full hardening, Resistant to water and chemicals at 20 C°, after/ days</b>	7
<b>Volume shrinkage during curing, %:</b>	max. 4
<b>Linear shrinkage during curing, %:</b>	max. 0,4

Attention! Curing time significantly extends below 10-12°C!

	The hardened material*
<b>Compressive strength, N/mm<sup>2</sup></b>	min.60
<b>Bending strength, N/mm<sup>2</sup></b>	min. 45
<b>Tensile strength, N/mm<sup>2</sup></b>	min. 45
<b>Shore D hardness</b>	74-80
<b>Tear-off strength, N/mm<sup>2</sup></b>	concrete tears off
<b>Water resistance</b>	water-resistant
<b>Chemical resistance</b>	acc. to chemical-resistance chart
<b>Combustibility</b>	on non-combustible substrate hardly combustible
<b>Flame spreading</b>	on non-combustible substrate moderate flame spreading

\*Determined after the 7-day full cure time



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**5. Requirements to the substrate:**

See Application Instruction of Amerin® Products

**6. Surface preparation:**

See Application Instruction of Amerin® Products

**7. Mixing of components:**

See Application Instruction of Amerin® Products

**8. Application:**

Consumption data given below are valid only on smooth, even, non-cracked, voidless, at least C-16, dry ( moisture content max 3,5% ) concrete.

**8.1. Priming**

Consumption of AMERIN® D-2F: approx 0,3 kg/m<sup>2</sup> depending on substrate absorbency

Application: with Teddy-roller or rubber squeegee.

Ponding of the primer should be avoided!

In most cases quartz sand should be scattered on the fresh coating (depending on the thickness and type of the following layer).

Repeating this priming process the following day (without the scattering of quartz sand), we can produce a pore closing, transparent, dust binding layer of concrete.

**8.2. Levelling**

If necessary the repair of the substrate can be done a day after the priming according to the following:

Up to the 0,5-1,0 mm thickness

- 8.2.1. - 1,0 part by mass AMERIN® D-2F, consumption of resin approx. 0,6 kg/m<sup>2</sup>/mm
- 2-3 parts by mass quartz sand (Ø 0,1-0,5 mm)

8.2.2. Up to 5 mm thickness

- 1,0 part by mass AMERIN® D-2F, consumption of resin approx. 0,25 kg/m<sup>2</sup>/mm
- 2,0 parts by mass quartz sand (Ø 0,1-0,5 mm)
- 3,0 parts by mass quartz sand (Ø 0,6-1,2 mm)

8.2.3. Up to 5-20 mm thickness

- 1,0 part by mass AMERIN® D-2F, consumption of resin approx. 0,15-0,2 kg/m<sup>2</sup>/mm
- 2,8 parts by mass quartz sand (Ø 0,1-0,5 mm)
- 6,2 parts by mass quartz sand (Ø 1,0-2,0 mm)

8.2.4. Up to 20-50 mm thickness

- 1,0 part by mass AMERIN® D-2F, consumption of material approx. 0,1-0,15 kg/m<sup>2</sup>/mm
- 2,5 parts by mass quartz sand (Ø 0,1-0,5 mm)
- 6,0 parts by mass quartz sand (Ø 1,0-2,0 mm)
- 5,5 parts by mass quartz sand (Ø 3,0-5,0 mm)



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## 8.3 Overcoating

An AMERIN® topcoat (e.g.: AMERIN® DT-4, DT-V, etc.) can be applied the day after the application of priming no. 8.1 or if necessary after the application of equalization no. 8.2.

**Caution!** On an equalized surface it is necessary to do a preliminary closing of pores with thixotropic AMERIN® D-2F if you want to produce a self-levelling layer afterwards. This is made by mixing AMERIN® D-2F with 2-4 % thickening (thixotropic) agent.

## 9. Packaging:

In 20 kg units (Component A: 15 kg, Component B: 5 kg)

Material can be supplied in other packaging units on request.

## 10. Storage life:

12 months for both Component A and B (For information on storage see *Application Instruction of Amerin Products*)

## 11. Work and Health Safety:

The cured material is physiologically harmless. Information on components can be found in *Material Safety Data Sheets*.

## 12. Fire protection classification:

Class III. (both components are inflammable)

## 13. Cleaning:

The components and the uncured mixture can be removed with AMERIN® H-1 thinner. The cured material can be removed by mechanical means only.

## 14. Handling and disposal of waste:

The cured material can be disposed of with domestic waste.

Remnants in the can must be handled as dangerous material and as residue of lacquer.

## 15. Licences and certifications:

ÉMI cert.: A-733/1994.

CE: 90-07-0201 TSÚS

OÉTI cert.: 49/1999

This technical data sheet has been composed to the best of our technical knowledge, experiences and experiments. It is, however, not binding. It has to be adjusted to the individual structure, application purpose and especially to local conditions.

For more information contact the manufacturer or his representative.

Aug, 2009.

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