

TECHNICAL DATA SHEET

AMERIN[®] DT-4 FLOOR COATING

1. Description:

Component A is modified, solvent-free epoxy resin with pigments, fillers and additives Component B is a modified cycloaliphatic polyamine adduct

2. Characteristics:

- coloured floorings for general purposes
- versatile application possibilities, all kinds of smooth and anti-skid floorings can be made in various thickness
- excellent general features like mechanical and abrasion resistance, chemical resistance etc
- very good carbamation resistance at temperatures down to +10 °C, i.e. there is no tendency of hazing and whitening at bad condition in time of hardening
- excellent flow properties
- wide range of colours
- excellent wetting of quartz sand
- dry heat resistance for short time: 30 C° +95 C°, permanently up to +60 C°
- wet heat resistance for short time:+ 60 $^{\circ}$, permanently +35 $^{\circ}$
- most common AMERIN floor coating

3. Areas of use:

- for making floors exposed to large mechanical and moderate chemical stress
- for industrial and storage halls, premises, workshops, engine-rooms, public areas, commercial areas, corridors, for various branches of trade, industry and service department stores and public buildings, garages, park houses etc.

4. <u>Technical data:</u>

Mixing ratio:

AMERIN[®] DT-4 component A AMERIN[®] DT-4 component B 4 parts by weight (kg) 1 parts by weight (kg)

	"A" komponens	"B" komponens	Keverék
Appearance	coloured liquid	slightly yellowish, clear, transparent liquid	
Density, at 20 C°, g/cm ³	1,62-1,72	1,00-1,10	1,45-1,55
Viscosity at 25 C°, mPas	4000-8000	500-1000	2000-3500



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	The mixture
Gel time, 100 g, at 25 C°, min	70-110
Pot life at 20 C°, min	appr. 40
Minimum curing temperature, C° : (of the base and of the airs)	⊥ 8*
Suggested temperature during application	+ 15 - + 20
Relative humidity during application at 20 °C, %:	max.70
Relative humidity during application at 10 °C, %:	max.60
Overcoating time at 20 C°, hours	12-24
Resistant to foot traffic at 20 C°, after hours	24
Coating can be mechanicaly loaded at 20°C, days	3
Time of full hardening, coating becomes resistant to water and chemicals, at 20°C, days	7
Volume shrinkage during curing, %	max. 2
Linear shrinkage during curing, %	max. 0,2

*Attention! Curing time significantly increases below 10-12°C!

	The fully hardened material*	
Compressive strength, N/mm ²	min. 80	
Bending strength, N/mm ²	min. 40	
Tensile strength, N/mm ²	min. 45	
Shore D hardness	74-80	
Bonding strength to concrete	the concrete tears up	
Impression, mm	max. 0,1	
Water Impermeability (3 atm, 24 hours)	impermeable	
Chemical resistance	according to resistance list	
Coefficient of linear thermal expansion, 1/ C°	appr.127x10 ⁻⁶	
Thermal conductivity value	=0,18 W/mK	
	on non-combustible substrate hardly	
Combustibility	combustible	
	on non-combustible substrate moderate	
Flame spreading	flame	

*Determined after the 7-day full cure time

Standard range of colours:

cc. RAL 1002, cc. RAL 1014, cc. RAL 3013, cc. RAL 5012, cc. RAL 6002, cc. RAL 6011, cc. RAL 6019, cc. RAL 6021, cc. RAL 7001, cc. RAL 7030, cc. RAL 7032, cc. RAL 7035, cc. RAL 7037, cc. RAL 9016, cc. RAL 9017.



- 5. <u>Requirements to the substrate:</u> See Application Instruction of Amerin Products
- 6. <u>Surface preparation:</u> See Application Instruction of Amerin Products
- 7. <u>Mixing of components:</u> See Application Instruction of Amerin Products

8. Application:

These consumption data are valid only with smooth, even, non-cracked, voidless, at least C-16, dry (moisture content max 3,5%) concrete.

8.1. Priming

The AMERIN[®] DT-4 should be applied exclusively on properly prepared and primed substrate within the overcoating time given in the primer's material data sheet. Suitable primers are AMERIN[®] D-2, D-2/GT, E-1, D-2/R RM-3, RA-1, NF-1. If the coating of AMERIN[®] DT-4 must be done after the overcoating time, it is allowed only after thorough polishing and vacuuming of the primer layer.

8.2. Equalization

See data sheets of primers for instructions on smoothing. Recommended primers for smoothing: AMERIN[®] D-2, D-2/GT.

8.3. Overcoating:

The AMERIN[®] DT-4 can be applied the following day after the application of priming no. 8.1 or if necessary after the application of equalization. 8.2.

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

The material consumption, applied modifying agents (most of the time quartz sand in various fractions) and the method of application can be chosen in wide ranges depending on the intended use, aesthetic requirements and applicators' preferance.

From numerous possible solutions the following three typical examples are described:

8.3.1. smooth coating of the thickness of approx. 0.5 mm

On the prepared substrate primed with AMERIN[®] D-2 the AMERIN[®] DT-4 is applied by Teddy-roller and deaired with spike roller.

Material consumption:

- AMERIN[®] DT-4 approx. 0,7 kg/m²

This thin coating is recommended especially on a good quality concrete of high strength that was smoothed free from defects!

8.3.2. smooth coating of the thickness of approx. 2 mm

For priming it is recommended to use AMERIN[®] D-2, D-2/GT then scatter with quartz sand (\emptyset 0,4-0,8 mm). The following day the excess of sand should be swept off, sanded and vacuumed. Afterwards the AMERIN[®] DT-4 filled with 30 % quartz sand of \emptyset 0,1-0,4 mm is applied with serrated trowel. The coating should be de-aired intensively and repeatedly by spike roller.

Material consumption:



- AMERIN[®] DT-4 approx. 1,5 kg/m²
- quartz sand (Ø 0,4-0,8 mm) approx. 1,5 kg/m² (for scattering of primer)
- quartz sand (Ø 0,1-0,4 mm) approx. 0,5 kg/m² (for filling of AMERIN DT-4)

8.3.3. anti-skid coating of thickness approx. 1,5-2 mm

For priming it is recommended to use AMERIN[®] D-2, D-2/GT then scatter with quartz sand \emptyset 0,3-0,6 mm. The following day after sanding and vacuuming, the surface should be smoothed with AMERIN[®] DT-4 filled with 50-80 % quartz sand \emptyset 0,1-0,4 mm then scattered right away with sand of the same type.

Material consumption:

- AMERIN[®] DT-4 approx. 0,6-0,8 kg/m²
- quartz sand (Ø 0,3-0,6 mm) approx. 1,0 kg/m² (for scattering of primer)
- quartz sand (Ø 0,1-0,4 mm) approx. 1,5-2,0 kg/m² (for filling of AMERIN[®] DT-4)

The AMERIN[®] DT-4 topcoat should be applied by Teddy-roller after repeated sanding and vacuuming on the third day. Material consumption:

- AMERIN[®] DT-4 approx. 0,5-0,7 kg/m²

9. <u>Packaging:</u>

In 25 kg units (Component A: 20 kg, Component B: 5 kg) Material can be supplied in other packaging units on request.

10. Storage life:

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

Caution! As sedimentation of fillers may occur, Component A has to be mixed thoroughly before adding component B.

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. <u>Licences and certifications:</u> ÉMI: A-733/1994. CE: 90-07-0201 TSUS

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. Some technical changes have been made to this print medium. Older editions are invalid and may not be used anymore. If a technically revised new edition is issued, this edition becomes invalid.



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For more information contact the manufacturer or his representative.

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