TECHNICAL DATA SHEET

AMERIN® DT-4/R
RAPID FLOORCOATING

1. ***Description:***

Component A is modified, solvent-free epoxy resin with pigments, additives and fillers
Component B is modified polyamine with high reactivity

2. ***Characteristics:***

- a generally used coloured flooring material and faster hardening than AMERIN DT-4
- very quick gelling, during the application it requires greater care and speed than usually
- versatile application possibilities, all kinds of smooth and skid resistant coatings can be made in various thickness
- excellent general parameters
- excellent mechanical and abrasion resistance
- very good chemical resistance
- excellent flow properties
- wide range of colours
- excellent wetting of quartz sand
- dry heat resistance for short time: - 20 C° - +85 C°, permanently up to +50 C°
- wet heat resistance for short time:+ 50 C°, permanently +30 C°

3. ***Areas of use:***

- It is similar to AMERIN DT-4, when fast hardening is necessary

4. ***Technical data:***

Mixing ratio:

AMERIN DT-4/R component A 5 parts by weight (kg)
AMERIN DT-4/R component B 1 parts by weight (kg)

	Component „A”	Component „B”	The mixture
Appearance	coloured liquid	slightly yellowish, clear, transparent liquid	
Density, at 20 C°, g/cm^3	1,65-1,75	0,94-0,98	1,55-1,65
Viscosity at 25 C°, mPas	4000-8000	200-400	

	The mixture
Initial flow-out time DIN8 at 25 C°, s	30-50
Gel time, 100 g, at 25 C°, min	10-15
Pot life at 20 C°, min.:	appr. 6-8
Minimum curing temperature, C° (both of the stand and the air)	+ 5*
Suggested temperature during applicationoC	+ 15 - + 20
Relative humidity during application at 20 oC, %:	max.70
Relative humidity during application at 10 oC, %:	max.60
Overcoating time at 20 C°, hours	6-12
The coating can be sanded at 20 C°, hours	4
Resistant to foot traffic at 20 C°, after... hours	6
Resistant to mechanical loading at 20 C°, after... days	1
Time of full hardening, Resistant to water and chemicals at 20 C°, after... days	4
Volume shrinkage during curing, %	max. 2
Linear shrinkage during curing, %	max. 0,2

*Mind that curing time significantly extends below 10-12°C!

	the fully hardened material*
Compressive strength, N/mm^2	min. 55
Shore D hardness	74-80
Tear-off strength, N/mm^2	concrete tears off
Impression, mm	max. 0,1
Impermeability (3 athm, 24 hours):	impermeable
Chemical resistance	according to chemical resistance list
Combustibility	on non-combustible substrate hardly combustible
Flame spreading	on non-combustible substrate moderate flame spreading

*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. ***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:
Caution! **The reactivity of Amerin DT-4/R is higher than those of the most epoxy products. For this reason, in a larger quantity the mixture gels faster, its pot life considerably decreases. Therefore during application it is recommended to mix smaller quantities together. (e.g.: 5+1 kg) In case of additional quartz sand, the pot life slightly increases.**
The remaining, unused mixture is inclined to self-ignite even in an amount of 1 kg. In order to prevent this, a 5-10 times larger quantity of quartz sand should be added to the mixture, than the mixture itself before gelling.

8.1.Priming
The AMERIN DT-4/R should be applied exclusively on properly prepared and primed substrate within the overcoating time stated in the primer's material data sheet. Suitable primers: AMERIN D-2/R, D-2, D-2/GT, E-1, RM-4. If the coating of AMERIN DT-4/R must be done after the overcoating time , that is allowed only after thorough sanding 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/R, D-2, D-2/GT.

8.3. Overcoating:
The AMERIN DT-4/R topcoat can be applied after approx. 4-6 hours in case of the use of AMERIN D-2/R, and on the following day in case of the use of other primers after the application of priming no. 8.1 or, if necessary, after the application of equalization no. 8.2 or no. 8.3.

Caution! On an equalized surface it is necessary to do a preliminary closing of pores with thixotropic AMERIN DT-4/R if you want to produce a self-levelling layer afterwards. This is made by mixing AMERIN DT-4/R 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:

8.4.1. smooth coating of the thickness of approx. 0.5 mm
On the prepared substrate primed with AMERIN D-2 or AMERIN D-2/R the AMERIN DT-4/R is applied by Teddy-roller and de-aired with spike roller.

Material consumption:
- AMERIN DT-4/R 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!

8.4.2. anti-skid coating of thickness approx. 1,5-2 mm
For priming it is recommended to use AMERIN D-2/R, D-2, D-2/GT then scatter with quartz sand ∅ 0,4-0,8 mm.

After approx. 4 hours (in case of D-2/R) or on the following day (in case of D-2 or D-2/GT) after sanding and vacuuming, the whole surface must be smoothed with AMERIN DT-4/R filled with 50-80 % quartz sand (∅ 0,1-0,5 mm) then scattered right away with sand of the same type.
Material consumption:

- AMERIN DT-4 /R approx. 0,6-0,8 kg/m²
- quartz sand (∅ 0,4-0,8 mm) approx. 1,0 kg/m² (for scattering of primer)
- quartz sand (∅ 0,1-0,5 mm) approx. 1,5-2,0 kg/ m² (for filling of AMERIN DT-4/R)

In a further 4-6 hours after repeated sanding and vacuuming AMERIN DT-4/R topcoat should be applied by Teddy-roller.
Material consumption:

- AMERIN DT-4 /R approx. 0,4-0,6 kg/m²

9. Packaging:

In 30 kg units (Component A: 25 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. Licences and certifications:

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.

For more information contact the manufacturer or his representative.

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