

# **AMERIN**<sup>®</sup> **DT-V**

#### FLOOR COATING WITH AN ENHANCED CHEMICAL RESISTANCE

#### 1. Description:

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

#### 2. Characteristics:

- enhanced chemical resistance
- excellent mechanical, flowing, application, and abrasion resistance properties
- versatile application possibilities, all kinds of smooth and skid resistant coatings can be made in various thickness
- short term dry heat resistance:  $30 \, \text{C}^{\circ}$   $+95 \, \text{C}^{\circ}$ , long term resistance up to  $+70 \, \text{C}^{\circ}$
- wet heat resistance for short term:+ 60 °C, long term resistance up to +50 °C
- on exposure to light the coating grows darker which does not effect its other characteristics

### 3. Areas of use:

Coating floors and vertical surfaces exposed to high chemical load in e.g. laboratories, chemical and food industrial factories, galvanizing factories, battery rooms etc.

## 4. Technical data:

**Mixing ratio:** 

AMERIN DT-V component A
AMERIN DT-V component B

4,5 parts by weight (kg) 1 parts by weight (kg)

	component "A"	component "B"	Mixture
Appearance	coloured liquid	yellowish-brown liquid	
Density, at 20 C°, g/cm <sup>3</sup>	1,80-2,00	1,08-1,12	1,7-1,8
Viscosity at 25 C°, mPas	6000-9000	900-1400	3000-6000
Flow-out at 25 °C, DIN 8, sec	60-120	-	_



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	the mixture	
Gel time, 100 g, at 25 C°, min	45-90	
Pot life at 20 C°, min	appr. 30	
Minimum curing temperature, C°: (of the base and of		
the airs)	+ 10*	
Suggested temperature during application C°	+ 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	16-36	
Resistant to foot traffic at 20 C°, after hours	appr. 36	
Coating can be mechanicaly loaded at 20°C, days	4	
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	

<sup>\*</sup>Attention! Curing time significantly increases below 10-12°C!

	the hardened material*
Compressive strength, N/mm <sup>2</sup>	min. 70
Bending strength, N/mm <sup>2</sup>	min. 50
Tensile strength, N/mm <sup>2</sup>	min. 35
Shore D hardness	74-80
Modulus of elasticity N/mm <sup>2</sup>	appr. 1600
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
Combustibility	on non-combustible substrate hardly combustible
Flame spreading	on non-combustible substrate moderate flame

<sup>\*</sup>Determined after the 7-day full cure time

## **Standard range of colours:**

cc. RAL 6002,7032,7001

## 5. Requirements to the substrate:

See Application Instruction of Amerin Products

6. <u>Surface preparation:</u> See Application Instruction of Amerin Products



#### 7. Mixing of components:

See Application Instruction of Amerin Products

#### 8. Application:

#### 8.1.Priming

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

## 8.2. Equalization:

Instructions on smoothing can be read in the material data sheets of primers. Recommended primers for smoothing: AMERIN D-2

#### 8.3. Overcoating:

The AMERIN DT-V can be applied the following day after the priming no. 8.1 or if necessary after the equalization no. 8.2.

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

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

#### **8.4.1**. smooth coating with the thickness of approx. 2 mm

For priming it is recommended to use AMERIN D-2 or D-2/GT then scattered with quartz sand ( $\varnothing$  0,4-0,8 mm). The following day the excess sand must be swept off, sanded and vacuumed. Afterwards the AMERIN DT-V filled with 30 % quartz sand  $\varnothing$  0,1-0,5 mm is applied with serrated trowel. The coating should be de-aired intensively and repeatedly by spike roller.

# Material consumption:

- AMERIN DT-V approx. 1,8 kg/m<sup>2</sup>
- quartz sand (Ø 0,4-0,8 mm) approx. 1,0 kg/m² (for scattering of primer)
- quartz sand (Ø 0,1-0,5 mm) approx. 0,5 kg/m² (for filling of AMERIN DT-V)

#### **8.4.2**. anti-skid coating of thickness approx. 1,5-2 mm

For priming it is recommended to use AMERIN D-2 or D-2/GL then scatter it with quartz sand the size of  $\varnothing$  0,4-0,8 mm. The following day after sanding and vacuuming, the surface should be smoothed with AMERIN DT-V filled with 50-80 % quartz sand  $\varnothing$  0,1-0,5 mm then scatter it right away with sand of the same type.

#### Material consumption:

- AMERIN DT-V approx. 0,7-0,9 kg/m<sup>2</sup>
- quartz sand (Ø 0,4-0,8 mm) approx. 1,0 kg/m² (for scattering of primer)
- quartz sand (Ø 0,1-0,5 mm) approx. 1,5-2,0 kg/ m² (for filling of AMERIN DT-V)

The AMERIN DT-4 topcoat should be applied by Teddy-roller after the repeated sanding and vacuuming on the third day.



#### Material consumption:

- AMERIN DT-V approx. 0,6-0,8 kg/m<sup>2</sup>

#### 9. Packaging:

In 27,5 kg units (Component A: 22,5 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:

OÉTI: 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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