



TECHNICAL DATA SHEET

AMERIN[®] DTA-4 ANTISTATIC FLOORCOATING and AMERIN[®] DTA-4/C CONDUCTIVE FLOORCOATING

1. Description:

The characteristics of both materials are the same except for the electrical conductivity values.
Component A is a modified, solvent-free epoxy resin with pigments, additives and fillers
Component B is a modified cycloaliphatic polyamine

2. Characteristics:

- permanent electrical conductivity for dissipating electrostatic charges
- the resistance to earth of AMERIN DTA-4 is 10^6 - 10^8 Ohm
- the resistance to earth of AMERIN DTA-4/C is 10^4 - 10^6 Ohm
- their other parameters are the same as those of AMERIN DT-4
- excellent mechanical and abrasion resistance
- very good chemical resistance
- excellent flow properties
- wide range of colours
- short term dry heat resistance: - 30 C° - +90 C°, long term resistance to +55 C°
- short term wet heat resistance: + 55 C°, long term +35 C°

3. Areas of use:

- The AMERIN DTA-4/C conductive floor coating is used in areas where explosive gases, vapours or pulverous materials can be found in the air and the discharge of static electricity can cause explosion. Such areas are chemical, pharmaceutical or explosive material manufacturing and storing facilities, spraying cabins, mills, laboratories, operating theatres in hospitals etc.
- The AMERIN DTA-4 antistatic floorcoating is used in areas where static charges can cause damages, inconveniences or the generated sparks can deteriorate electronic data storage devices e.g. in textile and paper factories, computer rooms, microelectronical factories etc.

4. Technical data:

Mixing ratio:

AMERIN DTA-4 component A	4 parts by weight (kg)
AMERIN DTA-4 component B	1 parts by weight (kg)
AMERIN DTA-4/C component A	4 parts by weight (kg)
AMERIN DTA-4/C component B	1 parts by weight (kg)



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Data of Component A	DTA-4	DTA-4/C
Appearance	coloured liquid	coloured liquid
Density, at 20 C°, g/cm ³	1,62-1,72	1,62-1,72
Viscosity at 25 C°, mPas	4500-8500	5000-9000

Data of Component B	DTA-4	DTA-4/C
Appearance	slightly yellowish or clear, transparent liquid	transparent liquid
Density, at 20 C°, g/cm ³	1,0-1,10	1,0-1,10
Viscosity at 25 C°, mPas	500-1000	500-1000

Data of the mixture	
Viscosity at 25 C°, mPas	approx. 3000
Density, at 20 C°, g/cm ³	approx.1,4
Gel time, 100 g, at 25 C°, min	approx. 75
Pot life at 20 C°, min.	approx. 40
Minimum curing temperature, C°	+ 8
Suggested condition of application: temperature*, C° relative humidity , % at 20 °C % at 10 °C %	+15-+20 max. 70 max.60
Overcoating time at 20 C°, hours	12-24
Resistant to foot traffic at 20 C°, after... hours	24
Resistant to mechanical loading at 20 C°, after... days	3
Resistant to water and chemicals at 20 C°, after... days	7
Volume shrinkage during curing, %	max. 2
Linear shrinkage during curing, %	max. 0,2

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



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Data referring to fully cured material *	DTA-4	DTA-4/C
Resistance to earth according to DIN 51953, Ohm	10^6 - 10^8	10^4 - 10^6
Compressive strength, N/mm ² :	min. 80	
Flexural strength, N/mm ²	min. 40	
Modulus of elasticity, N/mm ²	approx. 3500	
Tensile strength, N/mm ²	min. 45	
Shore D hardness	76-80	
Tear-off, N/mm ²	min. 1,5	
Impression, mm	max. 0,1	
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 spreading	

*Determined after the 7-day full cure time

Standard range of colours:

cc. RAL 1002, cc. RAL 3013, cc. RAL 5012, cc. RAL 6002, cc. RAL 6011, cc. RAL 6021, cc. RAL 7001, cc. RAL 7030, cc. RAL 7032, cc. RAL 7037, 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:

8.1. Priming

The AMERIN DTA-4 and DTA-4/C can 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, E-1, D-2/R, RM-4. If the application of AMERIN DTA-4 and DTA-4/C 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, D-2/GT

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



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8.3. Preparing earthing:

After the application of coating no. 8.1 or if necessary no. 8.2, self-adhesive copper strips should be stuck on the floor and should be connected to earthing. The copper strips should be fixed in a netlike position, the maximum allowed distance between the strips is 10 meters.

At least two connections should be established in a room between the network of copper strips and earthing. On larger areas one connection is necessary after every 200 m².

8.4. Bridging of joints:

In case of areas that are separated by joints (e.g. dilatation joints), the fields should be connected to earthing separately or the adjacent fields should be linked together. The bridging should be established with a copper wire looped into the joint, then both ends of the wire should be spread in the shape of a fan and stuck on the substrate with a self adhesive copper strip.

8.5. Application of AMERIN WA-2 conductive layer:

The conductive layer should be applied by rolling in crossing directions. During application care should be taken that the material be spread evenly and cover the priming everywhere.

Material consumption:

AMERIN WA-2 appr. 0,2 kg/m²

8.6. Application of antistatic and conductive layers:

Caution! Resistance to earthing should be checked immediately before the application of topcoat, measuring between the conductive layer and earthing. The quantity of applied material and modifying materials can be changing. From the possible solutions the following three typical examples are described:

8.7. smooth coating with the thickness of approx. 1,0 mm

AMERIN DTA-4 or DTA-4/C topcoats should be applied only on at least one-day-old, dried conductive layer. The mix should be spread evenly using a serrated trowel, and de-aired using a spike roller.

Material consumption:

AMERIN DTA-4, DTA-4/C: 1,5 kg/m²

8.7.1. smooth coating with the thickness of approx. 1,3 mm

AMERIN DTA-4 or DTA-4/C topcoats should be applied only on at least one-day-old, dried conductive layer. The mix should be spread evenly using a serrated trowel and de-aired using a spike roller.

Material consumption:

AMERIN DTA-4, DTA-4/C: 2,0 kg/m²

8.7.2. anti-skid coating with the thickness of approx. 1,5 mm

AMERIN DTA-4 or DTA-4/C topcoats should be applied by roller on at least one-day-old, dried conductive layer and scattered with silicium carbide the size of 0,3-0,6 mm.

Material consumption:

AMERIN DTA-4, DTA-4/C: 0,5 kg/m²

Silicium carbide: 1,0 kg/m²

AMERIN DTA-4 or DTA-4/C topcoat must be applied by Teddy-roller on the following day after sanding and vacuuming.

Material consumption:

AMERIN DTA-4, DTA-4/C: approx.0,8 kg/m²



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8.8. *Checking of resistance to earth:*

Resistance to earth is measured between an electrode placed on the coating and the earthing of the building. Resistance to earth is determined by a suitable measuring instrument between the electrode (with the round shape contact area of approx. 20 cm²) and the connection to earth with the distance of 4-5 meters.

9. *Packaging:*

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.

Licences and certifications:

ÉMI :A-116/1996.

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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