TECHNICAL DATA SHEET

AMERIN® UTR-3/P

UNIVERSAL PUR FLOORCOATING

1. *Description:*

Component A is a solvent-free polyol based resin with pigments, additives and fillers
Component B is a MDI based poly-isocyanate

2. *Characteristics:*

- slightly flexible, universal type for general purposes
- versatile application possibilities, all kinds of smooth and anti-skid floorings can be made in various thickness
- excellent abrasion resistance
- excellent chemical resistance excellent
- flow properties
- wide range of colours
- excellent wetting of quartz sand
- dry heat resistance for short time: - 30 C° - +80 C°, permanently up to +50 C°
- wet heat resistance for short time:+ 50 C°, permanently +30 C°
- low cost

3. *Areas of use:*

- for coatings exposed to moderate mechanical and slight chemical stress
- the AMERIN UTR-3/P is primarily used as a coating for interior and exterior concrete floors of multi-floored car houses, terraces, balconies, ramps, etc
- it is suitable for overcoating asphalt.

4. *Technical data:*

Mixing ratio:

AMERIN UD-4	**Component A**	**9 parts by weight (kg)**
AMERIN UD-4	**Component B**	**1 parts by weight (kg)**

Data referring to Component A:

Appearance:	coloured liquid
Density, at 20 C°, g/cm^3:	2,00-2,20
Viscosity at 25 C°, mPas:	3500-7000

Data referring to Component B:

Appearance:	brown coloured, transparent liquid
Density, at 20 C°, g/cm^3:	1,20-1,25
Viscosity at 25 C°, mPas:	70-110

Data referring to the mixture:

Density, at 20 C°, g/cm^3:	approx.1,9
Initial viscosity at 25 C°, mPas:	2000-4000
Gel time, 100 g, at 25 C°, min.	100-150
Pot life at 20 C°, min.	approx. 40
Minimum curing temperature, C°:	+ 5

(of the substrate and the air)
*Mind that curing time significantly extends below 10-12°C!

Suggested condition of application:

temperature*, C°:	+15-+20
relative humidity, %:	30-50
Permissible max. relative humidity, %:	60
Permissible max. relative humidity below 10 C°, %	50
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

Data referring to fully cured material *:

Compressive strength, N/mm^2:	min. 30
Flexural strength, N/mm^2:	min. 10
Elongation at break, %:	approx. 40
Trouser Tear strength, N/mm:	approx. 40
Shore D hardness:	approx. 50-60
Tear-off strength, N/mm^2:	min. 1,5
Impermeability,3 athm, 24 hours:	impermeable
Chemical resistance:	according to resistance tabulation
Combustibility:	on non-combustible substrate hardly combustible
Flame spreading:	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 AMERIN UTR-3/P is more sensitive to moisture content of the air than epoxy based materials. The moisture content of the air cannot exceed 60 % or coating blistering can take place. Therefore, during application the moisture content of the air should be measured continuously.
For thinning of AMERIN UTR-3/P, only a AMERIN H-2/PUR thinner should be used. Care should be taken that we do not add H-1/EP thinner because it spoils AMERIN UTR-3/P.

8.1.Priming

The AMERIN UTR-3/P 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 UB-1, RA-1. If the employment of AMERIN UTR-3/P must be done after the overcoating time, that is allowed only after thorough sanding and vacuuming of the primer layer.

Other suggested primers are the epoxy based AMERIN D-2 and D-2/GT. In this case the freshly applied material should be scattered with quartz sand (in most cases with Ø 0,1-0,4 or 0.3-0,6 mm fraction) without expectation and in every condition, then apply AMERIN UTR-3/P the following day.

Care should be taken not to overcoat the epoxy primer with the PUR based material too soon, because it can cause non-desired side reactions.

8.2.Equalization:

Instructions on smoothing can be read in the material data sheets of primers.

Recommended materials for smoothing: AMERIN UTR-3/P or UTR-3/P/G filled with quartz sand according to the degree of unevenness.

8.3.Overcoating:

The AMERIN UTR-3/P topcoat can be applied the 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 UTR-3/P if you want to produce a self-levelling layer afterwards. This is made by mixing AMERIN UTR-3/P 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 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 UB-1 the AMERIN UTR-3/P is applied by Teddy-roller and de-aired with spike roller.

Material consumption:

- AMERIN UTR-3/P kb. 0,8 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 UB-1 then scatter with quartz sand (∅ 0,4-0,8 mm). After 8-24 hours the excess of sand should be swept off, sanded and vacuumed. Afterwards the AMERIN UTR-3/P filled with 30 % quartz sand of ∅ 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 UTR-3/P kb. 0,8 kg/m²
- quartz sand (∅ 0,4-0,8 mm) kb. 1,0 kg/m²
- quartz sand (∅ 0,1-0,4 mm) kb. 0,5 kg/m²

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

For priming it is recommended to use AMERIN UB-1 then scatter with quartz sand ∅ 0,3-0,6 mm. The following day after sanding and vacuuming, the surface should be smoothed with AMERIN UTR-3/P filled with 50-80 % quartz sand ∅ 0,1-0,4 mm then scattered right away with sand of the same type.

Material consumption:

- AMERIN UTR-3/P approx. 0,7-0,9 kg/m²
- quartz sand (∅ 0,3-0,6 mm) approx. 1,0 kg/m²
- quartz sand (∅ 0,1-0,4 mm) approx. 1,5-2,0 kg/m²

Another 8-24 hours later the AMERIN UTR-3/P topcoat should be applied by Teddy-roller after repeated sanding and vacuuming.

Material consumption:

- AMERIN UTR-3/P approx. 0,6-0,8 kg/m²

9. Packaging:

In 25 kg units (Component A: 22,5 kg, Component B: 2,5 kg)

Material can be supplied also in other packaging units on request.

10. Storage

6 months for 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 *Installation Instructions* and *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-2/PUR 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:

CE: 90-09-0002 TSÚS

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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