PLASTI CHEMIE
Produktionsgesellschaft mbH

Technical data sheet date 01.10.2018

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Standard Binding agents / Sealing and coating systems

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Technical data sheet date 01.10.2010

4 K PLASTISTONE® EP – self-levelling coating 1.5 – 2.0 mm, standard and rapid

Product Description:	→	4K EP EA 1,5-2,0mm is a medium viscosity,filled and pigmented epoxy resin with high gloss surface. This leveling coating is available in two versions-standard and rapid. Supplied as a kit of 4 components, the 1st and the 2nd comp. is the epoxy / hardener system and the 3rd. Comp. are the fillers and pigments 4K EP flow coating EA meets the latest technical standards
	→	The formulation is free of nonylphenol and in the standard version benzyl alcohol free.
	→	In addition, legal requirements such as VOC (organic solvent) content far undercut and therefore the requirements of the AgBB - scheme under consideration of DIBt directive met.
Application:	→	Colored, self-leveling coating from 1.5 mm layer thickness is suitable on concrete screed, (tiling after appropriate pre-treatment), for production halls, storage rooms, underground garages, multi-storey car parkings, department stores, hospitals, etc.
	→	Wherever flat surfaces already exist or are heavily loaded with traffic. This material is not suitable for outdoors regarding UV-unstabillity.
	→	For surfaces with decorative requirements in the interior (such as gloss, surface appearance, yellowing sensitivity, etc.) we recommend the 4K EP-Elastic flow coating or the 2K EP-Easy Elastic.
	→	From 2mm thick, this coating is suitable for vehicular traffic such as forklift trucks (4 Wheel version) with loads of up to 3.5 t. Higher load limits of the coating can be achieved by full-surface sanding and additional sealing applications.
	→	Forklift traffic is adviced to a 4K EP leveling coating EA 2.5 - 3.0 mm from a layer thickness of 2.5 mm. Do not use in areas where a monochrome, scratch-resistant surface is required as an additive for the coating. The increase in scratch resistance can only be achieved by an additional colorless seal with Colorflakes-, quartz or other hardening filler.
	→	Can be used on substrates such as concrete and screed in the industrial sector with a max. moisture of 3% or in combination with the 2K EP barrier layer as a primer up to a max. moisture content of 5% (no oppressive humidity) .Not suitable for magnesite and anhydrite screeds (non-steam-diffusible), always use the EP-DF system.
	→	Always use the EP-Elastic system for asphalt coatings.
Processing:	→	Stir the colour pigment for about 1 minute into component A by using a suitable agitator, then completely discharge component B into component A and mix for about 1 minute. Change the material into a larger pail and add the filler with the agitator slowly running and mix for about 1 minute.
	→	The colour pigment should be stirred into component A with a fast running agitator as otherwise there is no sufficient dispersion (pinholing). Thus slow running one or double-spiral agitators are unsuitable.
	→	Discharge the mix onto the surface and disperse with a tooth trowel and roll off with a spiked roller.
	→	Generally it is recommended to immediately disperse the mixed material on the surface as it stays longer processible this way. Additionally it is avoided that the filler deposits in the pail which might cause uneven surfaces like levelling disturbances or colour disparities.

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4 K PLASTISTONE® EP – self-levelling coating 1.5 – 2.0 mm, Standard

We especially point out that the following technical values can only be achieved with components like binding agent / fillers / pigments. Plasti-Chemie International GmbH is not liable for the application of external products as technical properties may strongly deviate then.

Product data:	**Component A:**	**Component B:**
Viscosity at 23 °C:	~ 1150 mPas	~ 120 mPas
Solids content:	100 %	
Mix ratio PBW:	100 PBW	50 PBW
Filler addition on comp.A and comp.B:	6 % colour pigment and 150 % filler on comp. A+B	
Mixing time:	3 min.	
Material consumption:	Practical consumption with trowel toothing: no. 20 max. 2.5 kg/m² = 1.52 mm no. 23 max. 2.7 kg/m² = 1.64 mm no. 25 max. 3.2 kg/m² = 1.94 mm	
Density (mix):	1.65 kg / l	
Pot life at 20°C:	~ 40 min. / 300 g preparation. Attention! Larger preparations or higher temperatures shorten pot life (processing time)	
Curing time at 20°C:	Can be overlain after ~ 16 h, slightly chargeable after ~ 24h, trafficable after ~ 48 h, fully chemically and mechanically chargeable after 7 days Attention! Curing times are strongly influenced by subsurface and surrounding temperature. After a curing time (at 20°C) of 72 hours, overlaying without grinding (alkaline basic cleaning) is no longer possible. (sanded subsurface are an exception)	
Shelf life:	~ 12 months at 15°C to 25°C storage temperature	
Colour:	Acc. to colour chart	
Cleaning for tools:	EP-thinner (if no initial curing has taken place)	
GISCODE:	RE 1 (epoxy resin products, solvent-free)	
CE Norm as per DIN EN13813**:**	CE-label: EN 13813 SR-AR1-B3,6-IR20	
Mechanical properties:	**Test report no. P 3835-13a of Polymer Institute Flörsheim**	
Shore D hardness DIN 53505:	~ 83 Shore D	
Adhesive tensile strength DIN EN 1542:	~ 3.6 N/mm² 100% crack in concrete	
Abrasion resistance DIN EN ISO 5470-1:	(Taber) ~ 100 mg/1000 U	
Bending tensile strength DIN EN ISO 178:	~ 37.9 N/mm²	
Compressive strength DIN EN ISO 604:	~ 51.4 N/mm²	
Impact resistance DIN EN ISO 6272	≤ 20 Nm	

Available bundle sizes 4 K EP- self-levelling coating 1.5 – 2.0 mm, standard

Art.-no:	**Bundle size:**	**Bundle composition:**			
	Comp. A+B+C+D	**Comp.A (resin)**	**Comp.B (hardener)**	**Comp.C (filler for 1.5-2.0 mm)**	**Comp.D (pigment powder)**
031401+RAL Nr.-Y58	**12.80 kg**	3.33 kg	1.67 kg	7.50 kg	0.30 kg
031401+RAL Nr.-Y59	**30.72 kg**	8.00 kg	4.00 kg	18.00 kg	0.72 kg
031401+RAL Nr.-Y60	**1603.44 kg**	2x 210 kg	1x 210 kg	52x 18.00 kg	52x 0.72 kg

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4 K PLASTISTONE® EP – self-levelling coating 1.5 – 2.0 mm, rapid

Application areas:	→	As coloured, **fast curing**, self-levelling thin coating in interior zones for production halls, warehouses, basement garages on concrete and screed, everywhere where there are already even substrates as well as a corresponding load capacity or stability for the charges that are to be expected.
	→	Due to its solvent-free formulation, this product can be very well applied in basement garages, warehouses and other closed rooms.
	→	On concrete and screed floors that can be coated vapour diffusion tight.
	→	For substrate with maximum residual moisture of 3% or in combination with the EP-barrier coat as primer up to maximum residual moisture of 5%.
	→	From a layer thickness of 2 mm, this coating is suitable for vehicular traffic like forklift trucks (4 wheel version) with charges up to 3.5t.
	→	Not suitable for exterior surfaces (yellowing danger)
	→	For surfaces with high visual demands in interior zones (like gloss level, surface appearance, yellowing sensitivity) we recommend 4K EP-elastic sealing or 2K EP-Easy Elastic sealing.
	→	Please mind the general advice in catalogue group 1!
Properties:	→	Self-levelling from a layer thickness of 1.5 mm (acc. to substrate and at 20°C)
	→	Solvent-free, modified 2 – component epoxy resin / hardener system
	→	**The fast curing version is recommended for temperatures < 25°C.**
	→	Available in 26 different standard colour shades. Colour pigment and fillers are only added on processing. This results in a high flexibility on storage and application.
	→	By partial or full-surface dispersal with colour chips and subsequent colourless coating, terrazzo-like surfaces can be achieved that excel in a high scratch resistance and sure footedness.
	→	In areas where increased scratch resistance is required, we recommend to disperse a minimum of 100g/m² colour chips onto the fresh self-levelling coating as additional protection. After curing, apply a colourless 1K satin-gloss or 2K mat PU-sealing.
	→	From a quantity of 0.20kg/m² colour chips, you should reckon 2 work operations according to the sealing product.
	→	As colourless, brilliant sealing, we recommend the 2K EP-sealing WE for thin layer types (with ~ 0.10-0.12 kg/m²) or EP- coloritquartz sand binder as thick layer sealing (with ~ 0.12-0.15kg/m²).
	→	In combination with anti-slip grit and the colourless sealing, you can achieve non-skid surfaces.
	→	In vehicle garages, you should abstain from using the 1K/2K PU-sealing as there is an increased risk of plasticiser discolouration.
Safety data sheets:	→	On our homepage, domain Shop Articles
Resistance:	→	See catalogue group 1 chemical resistance of coating surfaces
Subsurface preparation:	→	See catalogue group 1 General requirements to subsurface
Processing:	→	Stir the colour pigment for about 1 minute into component A by using a suitable agitator, then completely discharge component B into component A and mix for about 1 minute. Change the material into a larger pail and add the filler with the agitator slowly running and mix for about 1 minute.
	→	The colour pigment should be stirred into component A with a fast running agitator as otherwise there is no sufficient dispersion (pinholing). Thus slow running one or double-spiral agitators are unsuitable.
	→	Discharge the mix onto the surface and disperse with a tooth trowel and roll off with a spiked roller.
	→	Generally it is recommended to immediately disperse the mixed material on the surface as it stays longer processible this way. Additionally it is avoided that the filler deposits in the pail which might cause uneven surfaces like levelling disturbances or colour disparities.

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4 K PLASTISTONE® EP – self-levelling coating 1.5 – 2.0 mm, rapid

We especially point out that the following technical values can only be achieved with components like binding agent / fillers / pigments. Plasti-Chemie International GmbH is not liable for the application of external products as technical properties may strongly deviate then.

Product data:	**Component A:**	**Component B:**
Viscosity at 23 °C:	~ 1150 mPas	~ 200 mPas
Solids content:	100 %	
Mix ratio PBW:	100 PBW	50 PBW
Filler addition on comp.A and comp.B:	6 % colour pigment and 150 % filler on comp. A+B	
Mixing time:	3 min.	
Material consumption:	Practical consumption with trowel toothing: no. 20 max. 2.5 kg/m² = 1.52 mm / no. 23 max. 2.7 kg/m² = 1.64 mm no. 25 max. 3.2 kg/m² = 1.94 mm	
Density (mix):	1.65 kg / l	
Pot life at 20°C:	~ 15 min. / 300 g preparation Attention! Larger preparations or higher temperatures shorten pot life (processing time) Immediate discharging of the preparation prolongates the processing time on the surface about 30 minutes. Furthermore an extension of processing time can be achieved with cool storage of the products (~15°C)	
Curing time at 20°C:	Can be overlain after 4 h - 6 h, slightly chargeable after ~ 12h, trafficable after ~ 16 h, fully chemically and mechanically chargeable after 4 days. Attention! Curing times are strongly influenced by subsurface and surrounding temperature. After a curing time (at 20°C) of 48 hours, overlaying without grinding (alkaline basic cleaning) is no longer possible. (sanded subsurface are an exception)	
Shelf life:	~ 12 months at 15°C to 25°C storage temperature	
Colour:	Acc. to colour chart	
Cleaning for tools:	EP-thinner (if no initial curing has taken place)	
GISCODE:	RE 1 (epoxy resin products, solvent-free)	
CE Norm as per DIN EN13813**:**	CE-label: EN 13813 SR-AR1-B4,2-IR20	
Mechanical properties:	**Test report no. P 3835-48 of Polymer Institute Flörsheim**	
Shore D hardness DIN 53505:	~ 85 Shore D	
Adhesive tensile strength DIN EN 1542:	~ 4.2 N/mm² 100% crack in concrete	
Abrasion resistance DIN EN ISO 5470-1:	(Taber) ~ 48 mg/1000 U	
Bending tensile strength DIN EN ISO 178:	~ 40.4 N/mm²	
Compressive strength DIN EN ISO 604:	~ 85.2 N/mm²	
Impact resistance DIN EN ISO 6272	≤ 20 Nm	

On customer request 12.80 kg and 30.72 kg bundles are available pigmented!

Available bundle sizes 4 K EP- self-levelling coating 1.5 – 2.0 mm, rapid

Art.-no:	**Bundle size:**	**Bundle composition:**			
	Comp. A+B+C+D	**Comp.A (resin)**	**Comp.B (hardener)**	**Comp.C (filler for 1.5-2.0 mm)**	**Comp.D (pigment powder)**
031402+RAL Nr.-Y58	**12.80 kg**	3.33 kg	1.67 kg	7.50 kg	0.30 kg
031402+RAL Nr.-Y59	**30.72 kg**	8.00 kg	4.00 kg	18.00 kg	0.72 kg
031402+RAL Nr.-Y60	**1603.44 kg**	2x 210 kg	1x 210 kg	52x 18.00 kg	52x 0.72 kg

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4 K PLASTISTONE® EP – self-levelling coating 2.5 - 3 mm, standard

Application areas:	→	As coloured, self-levelling thin coating in interior zones for production halls, warehouses, basement garages on concrete and screed, everywhere where there arealready even substrates as well as a corresponding load capacity or stability for the charges that are to be expected.
	→	Due to its solvent-free formulation, this product can be very well applied in basement garages, warehouses and other closed rooms.
	→	On concrete and screed floors that can be coated vapour diffusion tight.
	→	For substrate with maximum residual moisture of 3% or in combination with the EP-barrier coat as primer up to maximum residual moisture of 5%
	→	The coating is suitable for heavy load vehicular traffic, suitable for forklift trucks (4 wheel version) with high concentrated loads up to 6 t.
	→	Not suitable for exterior surfaces (yellowing danger)
	→	For surfaces with high visual demands in interior zones (like gloss level, surface appearance, yellowing sensitivity) we recommend 4K EP-elastic sealing or 2K EP-Easy Elastic sealing.
	→	Please mind the general advice in catalogue group 1!
Properties:	→	Self-levelling from a layer thickness of 2.5 mm (acc. to substrate and at 20°C)
	→	Solvent-free, modified 2 – component epoxy resin / hardener system
	→	**The standard curing version is recommended for temperatures of > 15°C.**
	→	Available in 26 different standard colour shades. Colour pigment and fillers are only added on processing. This results in a high flexibility on storage and application.
	→	By partial or full-surface dispersal with colour chips and subsequent colourless coating, terrazzo-like surfaces can be achieved that excel in a high scratch resistance and sure footedness.
	→	In areas where increased scratch resistance is required, we recommend to disperse a minimum of 100g/m² colour chips onto the fresh self-levelling coating as additional protection. After curing, apply a colourless 1K satin-gloss or 2K mat PU-sealing.
	→	From a quantity of 0.20kg/m² colour chips, you should reckon 2 work operations according to the sealing product.
	→	As colourless, brilliant sealing, we recommend the 2K EP-sealing WE for thin layer types (with ~ 0.10-0.12 kg/m²) or EP- coloritquartz sand binder as thick layer sealing (with ~ 0.12-0.15kg/m²).
	→	In combination with anti-slip grit and the colourless sealing, you can achieve non-skid surfaces.
	→	In vehicle garages, you should abstain from using the 1K/2K PU-sealing as there is an increased risk of plasticiser discolouration.
Safety data sheets:	→	On our homepage, domain Shop Articles
Resistance:	→	See catalogue group 1 chemical resistance of coating surfaces
Subsurface preparation:	→	See catalogue group 1 General requirements to subsurface
Processing:	→	Stir the colour pigment for about 1 minute into component A by using a suitable agitator, then completely discharge component B into component A and mix for about 1 minute. Change the material into a larger pail and add the filler with the agitator slowly running and mix for about 1 minute.
	→	The colour pigment should be stirred into component A with a fast running agitator as otherwise there is no sufficient dispersion (pinholing). Thus slow running one or double-spiral agitators are unsuitable.
	→	Discharge the mix onto the surface and disperse with a tooth trowel and roll off with a spiked roller.
	→	Generally it is recommended to immediately disperse the mixed material on the surface as it stays longer processible this way. Additionally it is avoided that the filler deposits in the pail which might cause uneven surfaces like levelling disturbances or colour disparities.

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4 K PLASTISTONE® EP – self-levelling coating 2.5 - 3 mm, standard

We especially point out that the following technical values can only be achieved with components like binding agent / fillers / pigments. Plasti-Chemie International GmbH is not liable for the application of external products as technical properties may strongly deviate then.

Product data:	**Component A:**	**Component B:**
Viscosity at 23 °C:	~ 1150 mPas	~ 120 mPas
Solids content:	100 %	
Mix ratio PBW:	100 PBW	50 PBW
Filler addition on comp.A and comp.B:	6 % colour pigment and 208 % filler on comp. A+B	
Mixing time:	3 min.	
Material consumption:	Self-levelling from 4.5 kg/m² at 20°C Practical consumption with trowel toothing: no. 25 max. 4.50 kg/m² = 2.50 mm no. 78 max. 5.40 kg/m² = 3.00 mm	
Density (mix):	1.80 kg / l	
Pot life at 20°C:	~ 40 min. / 300 g preparation. Attention! Larger preparations or higher temperatures shorten pot life (processing time)	
Curing time at 20°C:	Can be overlain after ~ 16 h, slightly chargeable after ~ 24h, trafficable after ~ 48 h, fully chemically and mechanically chargeable after 7 days Attention! Curing times are strongly influenced by subsurface and surrounding temperature. After a curing time (at 20°C) of 72 hours, overlaying without grinding (alkaline basic cleaning) is no longer possible. (sanded subsurface are an exception)	
Shelf life:	~ 12 months at 15°C to 25°C storage temperature	
Colour:	Acc. to colour chart	
Cleaning for tools:	EP-thinner (if no initial curing has taken place)	
GISCODE:	RE 1 (epoxy resin products, solvent-free)	
CE Norm as per DIN EN13813**:**	CE-label: EN 13813 SR-AR1-B3,5-IR20-B_{fl}-s1	
Fire behaviour:	**Material research laboratory (MPA), Stuttgart**	
As per DIN 4102 (D - Norm):	Test report no. 16-9012110-EP / fire class: DIN4102-B1	
As per DIN EN 13501-1 (EU - Norm)	Classification report no.16-9012110-80 EP / fire class: B_{fl}-s1	
Mechanical properties:	**Test report no. P 3835-14a of Polymer Institute Flörsheim**	
Shore D hardness DIN 53505:	~ 83 Shore D	
Adhesive tensile strength DIN EN 1542:	~ 3.5 N/mm² 100% crack in concrete	
Abrasion resistance DIN EN ISO 5470-1:	(Taber) ~ 93 mg/1000 U	
Bending tensile strength DIN EN ISO 178:	~ 42.5 N/mm²	
Compressive strength DIN EN ISO 604:	~ 53.7 N/mm²	
Impact resistance DIN EN ISO 6272	≤ 20 Nm	

On customer request 15.70 kg and 37.72 kg bundles are available pigmented!

Available bundle sizes 4 K EP- self-levelling coating 2.5 – 3.0 mm, standard

Art.-no:	**Bundle size:**	**Bundle composition:**			
	Comp. A+B+C+D	**Comp.A (resin)**	**Comp.B (hardener)**	**Comp.C (filler for 2.5-3.0 mm)**	**Comp.D (pigment powder)**
031501+RAL Nr.-Y61	**15.70 kg**	3.33 kg	1.67 kg	10.40 kg	0.30 kg
031501+RAL Nr.-Y62	**37.72 kg**	8.00 kg	4.00 kg	25.00 kg	0.72 kg
031501+RAL Nr.-Y63	**1967.44 kg**	2x 210 kg	1x 210 kg	52x 25.00 kg	52x 0.72 kg

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4 K PLASTISTONE® EP – self-levelling coating 2.5 - 3 mm, rapid

Application areas:	→	As coloured, **fast curing**, self-levelling thin coating in interior zones for production halls, warehouses, basement garages on concrete and screed, everywhere where there are already even substrates as well as a corresponding load capacity or stability for the charges that are to be expected.
	→	Due to its solvent-free formulation, this product can be very well applied in basement garages, warehouses and other closed rooms.
	→	On concrete and screed floors that can be coated vapour diffusion tight.
	→	For substrate with maximum residual moisture of 3% or in combination with the EP-barrier coat as primer up to maximum residual moisture of 5%
	→	The coating is suitable for heavy load vehicular traffic, suitable for forklift trucks (4 wheel version) with high concentrated loads up to 6 t.
	→	Not suitable for exterior surfaces (yellowing danger)
	→	For surfaces with high visual demands in interior zones (like gloss level, surface appearance, yellowing sensitivity) we recommend 4K EP-elastic sealing or 2K EP-Easy Elastic sealing.
	→	Please mind the general advice in catalogue group 1!
Properties:	→	Self-levelling from a layer thickness of 2.5 mm (acc. to substrate and at 20°C)
	→	Solvent-free, modified 2 – component epoxy resin / hardener system
	→	**The fast curing version is recommended for temperatures < 25°C.**
	→	Available in 26 different standard colour shades. Colour pigment and fillers are only added on processing. This results in a high flexibility on storage and application.
	→	By partial or full-surface dispersal with colour chips and subsequent colourless coating, terrazzo-like surfaces can be achieved that excel in a high scratch resistance and sure footedness.
	→	In areas where increased scratch resistance is required, we recommend to disperse a minimum of 100g/m² colour chips onto the fresh self-levelling coating as additional protection. After curing, apply a colourless 1K satin-gloss or 2K mat PU-sealing.
	→	From a quantity of 0.20kg/m² colour chips, you should reckon 2 work operations according to the sealing product.
	→	As colourless, brilliant sealing, we recommend the 2K EP-sealing WE for thin layer types (with ~ 0.10-0.12 kg/m²) or EP- coloritquartz sand binder as thick layer sealing (with ~ 0.12-0.15kg/m²).
	→	In combination with anti-slip grit and the colourless sealing, you can achieve non-skid surfaces.
	→	In vehicle garages, you should abstain from using the 1K/2K PU-sealing as there is an increased risk of plasticiser discolouration.
Safety data sheets:	→	On our homepage, domain Shop Articles
Resistance:	→	See catalogue group 1 chemical resistance of coating surfaces
Subsurface preparation:	→	See catalogue group 1 General requirements to subsurface
Processing:	→	Stir the colour pigment for about 1 minute into component A by using a suitable agitator, then completely discharge component B into component A and mix for about 1 minute. Change the material into a larger pail and add the filler with the agitator slowly running and mix for about 1 minute.
	→	The colour pigment should be stirred into component A with a fast running agitator as otherwise there is no sufficient dispersion (pinholing). Thus slow running one or double-spiral agitators are unsuitable.
	→	Discharge the mix onto the surface and disperse with a tooth trowel and roll off with a spiked roller.
	→	Generally it is recommended to immediately disperse the mixed material on the surface as it stays longer processible this way. Additionally it is avoided that the filler deposits in the pail which might cause uneven surfaces like levelling disturbances or colour disparities.

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4 K PLASTISTONE® EP – self-levelling coating 2.5 - 3 mm, rapid

We especially point out that the following technical values can only be achieved with components like binding agent / fillers / pigments. Plasti-Chemie International GmbH is not liable for the application of external products as technical properties may strongly deviate then.

Product data:	**Component A:**	**Component B:**
Viscosity at 23 °C:	+ 1150 mPas	~ 200 mPas
Solids content:	100 %	
Mix ratio PBW:	100 PBW	50 PBW
Filler addition on comp.A and comp.B:	6 % colour pigment and 208 % filler on comp. A+B	
Mixing time:	3 min.	
Material consumption:	Self-levelling from 4.5 kg/m² at 20°C Practical consumption with trowel toothing: no. 25 max. 4.50 kg/m² = 2.50 mm / no. 78 max. 5.40 kg/m² = 3.00 mm	
Density (mix):	1.80 kg / l	
Pot life at 20°C:	~ 15 min. / 300 g preparation Attention! Larger preparations or higher temperatures shorten pot life (processing time)	
Curing time at 20°C:	Can be overlain after ~ 4 h - 6 h, slightly chargeable after ~ 12h, trafficable after ~ 16 h, fully chemically and mechanically chargeable after 4 days. Attention! Curing times are strongly influenced by subsurface and surrounding temperature. After a curing time (at 20°C) of 48 hours, overlaying without grinding (alkaline basic cleaning) is no longer possible. (sanded subsurface are an exception)	
Shelf life:	~ 12 months at 15°C to 25°C storage temperature	
Colour:	Acc. to colour chart	
Cleaning for tools:	EP-thinner (if no initial curing has taken place)	
GISCODE:	RE 1 (epoxy resin products, solvent-free)	
CE Norm as per DIN EN13813**:**	CE-label: EN 13813 SR-AR1-B4,1-IR20-B_{fl}-s1	
Fire behaviour:	**Material research laboratory (MPA), Stuttgart**	
As per DIN 4102 (D - Norm):	Test report no. 16-9012110-EP / fire class: DIN4102-B1	
As per DIN EN 13501-1 (EU - Norm)	Classification report no.16-9012110-80 EP / fire class: B_{fl}-s1	
Mechanical properties:	**Test report no. P 3835-49 of Polymer Institute Flörsheim**	
Shore D hardness DIN 53505:	~ 87 Shore D	
Adhesive tensile strength DIN EN 1542:	~ 4.1 N/mm² 100% crack in concrete	
Abrasion resistance DIN EN ISO 5470-1:	(Taber) ~ 48 mg/1000 U	
Bending tensile strength DIN EN ISO 178:	~ 45.8 N/mm²	
Compressive strength DIN EN ISO 604:	~ 90.3 N/mm²	
Impact resistance DIN EN ISO 6272	≤ 20 Nm	

On customer request 15.70 kg and 37.72 kg bundles are available pigmented!

Available bundle sizes 4 K EP- self-levelling coating 2.5 – 3.0 mm, rapid

Art.-no:	**Bundle size:**	**Bundle composition:**			
	Comp. A+B+C+D	**Comp.A (resin)**	**Comp.B (hardener)**	**Comp.C (filler for 2.5-3.0 mm)**	**Comp.D (pigment powder)**
031502+RAL Nr.-Y61	**15.70 kg**	3.33 kg	1.67 kg	10.40 kg	0.30 kg
031502+RAL Nr.-Y62	**37.72 kg**	8.00 kg	4.00 kg	25.00 kg	0.72 kg
031502+RAL Nr.-Y63	**1967.44 kg**	2x 210 kg	1x 210 kg	52x 25.00 kg	52x 0.72 kg

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4 K PLASTISTONE® EP – self-levelling coating 2.5 - 3 mm, rapid

CE Certification: DIN EN 1504-2

Standard

CE

03 15 01
EN 1504-2:2004
Surface Protection Product- Coating
EN 1504-2: ZA.1f, ZA.1g

Rapid

CE

03 15 02
EN 1504-2:2004
Surface Protection Product- Coating
EN 1504-2: ZA.1f, ZA.1g

	Standard	**Rapid**
Abrasion Resistance	Mass Loss < 3000 mg	Mass Loss < 3000 mg
Capillary water absorption and water permeability	w < 0,1 kg/m^2 x h^{0,5}	w < 0,1 kg/m^2 x h^{0,5}
Resistance to strong chemical attack	Loss of hardness < 50%	Loss of hardness < 50%
Dielectric strength	Class III	Class III
Tear-off test to assess the adhesion	≥ 2,0 (1,5) [1)] N/mm²	≥ 2,0 (1,5) [1)] N/mm²
Fire Resistance	Class B_{fl}	Class B_{fl}

1)The value in brackets is the smallest allowable value

CE Certification DIN EN 13813:

Standard

CE

03 15 01
EN 13813:2002
Resin screed / synthetic resin coating for indoor use
EN 13813: SR - AR1 - B2,0 – IR20 - B_{fl}

Rapid

CE

03 15 02
EN 13813:2002
Resin screed / synthetic resin coating for indoor use
EN 13813: SR - AR1 - B2,0 – IR20 - B_{fl}

	Standard	**Rapid**
Fire Resistance	B_{fl}	B_{fl}
Release of corrosive substances	SR	SR
Wear resistance	≤ AR1	≤ AR1
Bond strength	≥ B2,0	≥ B2,0
Impact resistance	≥ IR20	≥ IR20

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Technical data sheet date 01.10.2018

4 K PLASTISTONE® EP – Self-levelling coating conductive 1.5 – 2.0 mm

Application areas:	→	As coloured, self-levelling conductive coating for cementitious subsoil, main application in production halls, computer rooms.
	→	Furthermore in bottling plants, where flammable air/gas mixtures or flammable liquids are being processed or where an electrostatic charging of the floor surfaces shall be omitted.
	→	For subsoil with residual moisture of 3% max or in combination with EP-barrier coat as primer up to maximum residual moisture of 5%.
	→	Mind general advice in catalogue group 1!
Properties:	→	The resistance to earth amounts to 10^4 up to 10^8 Ohm in cured state. (tested according to DIN EN 1081 and DIN EN 61340 5-1)
	→	This coating is suitable for vehicular traffic like forklift (4 wheel version) with charging up to 3.5 tonnes.
	→	Available in 26 different standard colours
	→	EP-self-levelling conductive coating **must not** be overlain with an additional sealing after curing. (disturbance of conductivity)
GISCODE:	→	RE 1 (epoxy resin products, solvent-free)
CE Norm:	→	According to DIN EN13813**:** CE-label: EN 13813 SR-B3,3-IR20
Safety data sheets:	→	On our homepage, domain Shop Articles
Resistance:	→	See catalogue group 1 Chemical resistance of coating surfaces
Subsurface preparation:	→	See catalogue group 1 General requirements to subsurface
Primer/ Levelling compound:	→	Treat the surface with 2K EP-primer or 2K EP-barrier coat according to technical data sheet.
	→	After curing of the primer (max.48 hours) on insufficient subsoil evenness, level the surface with 3K EP- fine spattling compound or 2K EP-barrier coat.
	→	Once more control the surfaces evenness and effect an intermediate grinding if required, as unevenness has negative effects on conductivity. *Attention!! Do not broadcast intermediate layers!!!!*
	→	
Copper strips:	→	Now paste the self-adhesive copper strips in a distance or pattern of maximum ~ 5 * 5 m onto the floor.
	→	On small surfaces up to ~ 100 m², 2-4 strings in fan shape are sufficient - on the floor with a length of ~ 1 m and drawn up on the wall about 30 cm.
	→	Make sure you have cleaned these areas with acetone or something similar beforehand. Press on the copper strips with a cloth. The free ends of the copper strips need to be drawn up vertically about 30 cm on the walls and connected by an electrician to the ring line or directly fixed on a ground terminal.
	→	(Also see processing instructions group 3 on the last page)
Processing the EP-conductive lacquer	→	See technical data sheet group 3
Processing conductive EP-coating	→	Stir resin component (A) with a fast-running agitator (single-shaft) for 1 minute, then add the colour pigment and stir another minute. Afterwards add hardener component (B) and mix with a suitable agitator for about 1 minute. Put the material into a larger pail and slowly add the filler with the agitator running on slowly, mix for ~1 minute. Discharge the mixture onto the surface, disperse with a dented spatula no. 23 (1.7 mm) and immediately de-aerate with a spiked roller in one direction. Good venting with the spiked roller leads to an additional dispersal of fibres.
	→	It is absolutely necessary to comply with the material consumption of 2.5 to 2.8 kg/m² so that conductance values are not being affected.
	→	As conductive fibres are black and copper strips may be visible as shadow on the surface, we recommend using colour chips - ~ 20 g/m² - especially with bright colours.

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Technical data sheet date 01.10.2010

4 K PLASTISTONE® EP – Self-levelling conductive coating 1.5 – 2.0 mm

We explicitly point out that the following technical values can only be achieved by using components like binding agents / fillers / pigments. Plasti-Chemie International GmbH is not liable for the application of external products as technical properties may strongly deviate then.

Product data:	**Component A:**	**Component B:**
Viscosity at 23 °C:	~ 1150 mPas	~ 120 mPas
Solids content:	~ 100 % fillers and pigments included	
Mix ratio PBW:	100 PBW	50 PBW
Filler addition on comp.A and comp.B:	6 % colour pigment and 150 % fillers on comp. A+B	
Mixing time:	3 min.	
Material consumption:	max. Practical consumption: 2.50 kg / m² (1.5mm) up to 2.80 kg / m² (1.7mm) with trowel toothing no. 23	
Density (mixture):	1.65 kg / l	
Pot life at 20°C:	~ 40 min. / 300 g preparation Attention! Large preparations or higher temperatures shorten pot life (processing time)	
Curing time at 20°C:	Accessible after 16 hours, slightly chargeable after 24 h, fit for traffic after 48 h, chemically / mechanically fully chargeable after 7 days. Attention! Curing times are strongly influenced by subsurface and surrounding temperature.	
Colour:	According to colour chart	
Shelf life:	~ 12 months at 15°C to 25°C storage temperature	
Cleaner for tools:	EP-thinner (if no initial curing has taken place)	
Mechanical properties:	**Test report no. P 3835-15a of Polymer Institute Flörsheim**	
Shore D hardness DIN 53505:	~ 82 Shore D	
Adhesive tensile strength DIN EN 1542:	~ 3.3 N/mm² 100% crack in concrete	
Abrasion resist. DIN EN ISO 5470-1:	(Taber) ~ 107 mg/1000 U	
Bending tensile str. DIN EN ISO 178:	~ 39.0 N/mm²	
Compression strength DIN EN ISO 604:	~ 59.5 N/mm²	
Impact resistance DIN EN ISO 6272	≤ 20 Nm	
Electrostatic properties:	Measuring voltage 100 V	
Resistance to earth DIN EN 1081	between 10^4 Ohm and 10^6 Ohm (see test report)	
Resistance to earth DIN EN 61340-4-1	between 10^4 Ohm and 10^6 Ohm (see test report)	

With compliance with material application between 2.5 up to 3.0 kg/m² max, resistance to earth lies between 10^4 Ohm and 10^6 Ohm.
Attention! EP-self-levelling conductive coating does not meet the additional standard as per norm draft DIN ICE 61340-2-1 measurement of personal earthing (system floor-shoes).
The system EP-DF self-levelling coating, conductive complies with all standard requirements.

On customer request we can provide pigmented bundles!

Available bundle sizes 4 K EP- self-levelling conductive coating 1.5 – 2.0 mm

Art.-no:	**Bundle content:**	**Bundle composition:**			
	Comp. A+B+C+D	**Comp.A (resin)**	**Comp.B (hardener)**	**Comp.C (filler for 1.5-2.0 mm)**	**Comp.D (pigment powder)**
032001+RAL Nr.-Y58	**12.806 kg**	3.336 kg	1.67 kg	7.50 kg	0.30 kg
032001+RAL Nr.-Y59	**30.735 kg**	8.015 kg	4.00 kg	18.00 kg	0.72 kg

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4 K EP-Verlaufbeschichtung EA leitfähig 1,5 – 2,0 mm
Standard und Rapid

CE Certification *DIN EN 1504-2:*

Standard

CE

03 20 01
EN 1504-2:2004
Indoor Coating product
EN 1504-2: ZA.1f, ZA.1g

Rapid

CE

20 02
EN 1504-2:2004
Indoor Coating Product
EN 1504-2: ZA.1f, ZA.1g

	Standard	**Rapid**
Abrasion Resistance	Mass Loss < 3000 mg	Mass Loss < 3000 mg
Capillary water absorption and water permeability	w < 0,1 kg/m² x $h^{0,5}$	w < 0,1 kg/m² x $h^{0,5}$
Resistance to strong chemical attack	Loss of Hardness < 50%	Loss of Hardness < 50%
Dielectric strength	Class II	Class II
Tear-off test to assess the adhesion	≥ 2,0 (1,5) [1)] N/mm²	≥ 2,0 (1,5) [1)] N/mm²
Fire Resistance	Class B_{fl}	Class B_{fl}

CE Certification DIN EN 13813:

Standard

CE

03 20 01
EN 13813:2002
Resin screed / synthetic resin coating for indoor use
EN 13813: SR - AR1 - B2,0 – IR20 - B_{fl}

Rapid

CE

03 20 02
EN 13813:2002
Resin screed / synthetic resin coating for indoor use
EN 13813: SR - AR1 - B2,0 – IR20 - B_{fl}

	Standard	**Rapid**
Fire Resistance	B_{fl}	B_{fl}
Release of corrosive substances	SR	SR
Wear resistance	≤ AR1	≤ AR1
Bond strength	≥ B2,0	≥ B2,0
Impact resistance	≥ IR10	≥ IR10

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Technical data sheet date 01.10.2010

2 K PLASTISTONE® EP – Conductive lacquer WE

Application areas:	→	As highly conductive intermediate layer under EP self-levelling conductive coating, for producing electrically conductive floors. In production halls, computer rooms, department stores, hospitals, on concrete, screed and magnesite as well as on anhydrite subsoil.
	→	Furthermore in bottling plants where flammable air/gas mixtures or flammable liquids are being processed or where an electrostatic charging of the floor surfaces shall be omitted.
	→	Mind general advice in catalogue group 1.
Properties:	→	EP-conductive lacquer is a water-soluble dispersion based on 2K-epoxy resin.
	→	Resistance to earth amounts to 10^4 up to 10^6 Ohm, in cured state. (Tested acc. to DIN EN 1081 and DIN EN 61340 5-1 / 4-5)
	→	EP-conductive lacquer does not contain any solvents (despite water)
Safety data sheets:	→	On our homepage, domain Shop Articles
Resistance:	→	See catalogue group 1 Chemical resistance of coating surfaces
Subsurface preparation:	→	See catalogue group 1 General requirements to subsurface
Primer/ Levelling compound:	→	Treat the surface with 2K EP-primer or 2K EP-barrier coat according to technical data sheet.
	→	After curing of the primer (max.48 hours) on insufficient subsoil evenness, level the surface with 3K EP-fine spattling compound or 2K EP-barrier coat.
	→	Once more control the surfaces evenness and effect an intermediate grinding if required, as unevenness has negative effects on conductivity. *Attention!! Do not broadcast intermediate layers!!!!*
	→	
Copper strips:	→	Now paste the self-adhesive copper strips in a distance or pattern of maximum ~ 5 * 5 m onto the floor.
	→	On small surfaces up to ~ 100 m², 2-4 strings in fan shape are sufficient - on the floor with a length of ~ 1 m and drawn up on the wall about 30 cm.
	→	Make sure you have cleaned these areas with acetone or something similar beforehand. Press on the copper strips with a cloth. The free ends of the copper strips need to be drawn up vertically about 30 cm on the walls and connected by an electrician to the ring line or directly fixed on a ground terminal.
	→	(Also see processing instructions group 3 on the last page)
Processing the EP-conductive lacquer	→	Discharge hardener component (B) completely into resin component (A) and mix with a suitable agitator for about 2 minutes and let mature for 10 min. Then repot into another pail and mix for another minute. Crosswise roll out the mixture onto the surface with a paint roller directly out of the pail.
	→	Do not transgress the processing time of the mixed material of 1.5 hours max at 20°C!! (Shorter on higher temperatures!)
	→	*Attention!!* No longer process the mixture even if it does not show a visible alteration. After transgression of this time, the reactivity of the EP-conductive lacquer is no longer given!
	→	*Attention!! Do not broadcast intermediate layers!!!!*
	→	Accessible and ready for treatment with EP-self-levelling conductive coating after ~ 16 hours at 20°C (indicated times are prolonged on lower temperatures and high air moisture).
	→	Slightly grind with a grinding machine after the conductive lacquer has cured for removing dirt particles or other foreign body inclusions, then vacuum the surface! (Grinding the cured EP-conductive lacquer can be replaced by repelling with a steel blade.)

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Technical data sheet date 01.10.2010

2 K PLASTISTONE® EP – Conductive lacquer WE

We explicitly point out that the following technical values can only be achieved by using components like binding agents / fillers / pigments. Plasti-Chemie International GmbH is not liable for the application of external products as technical properties may strongly deviate then.

Product data 2K EP–conductive lacquer WE:	**Component A:**	**Component B:**
Viscosity at 23 °C:	~ 300-500 mPas	
Solids content:	~ 42 %	
Mix ratio PBW:	500 PBW	100 PBW
Mixing time:	2 min., maturing for 10 min., repot and mix another 1 min.	
Material consumption:	0.12 – 0.15 kg / m² with paint roller	
Density (mixture):	1.15 kg / l	
Processing time at 20°C:	max. 1.5 h. (do not process longer, property change possible)	
Curing time at 20°C:	- Curing times are influenced by air moisture and temperature. - accessible after ~ 16 h, can be overlain after ~ 24 h, chargeable after ~ 48 h - mechanically fully chargeable after 3-5 days and chemically after ~7 days On high air moisture (> 70%) you have to assume a doubling of curing times. Make sure that there is sufficient ventilation immediately after processing. After a curing time (at 20°C) of 72h, overlaying without grinding (alkaline basic cleaning) is no longer possible.	
Shelf life:	~ 12 months at 15°C to 25°C storage temperature	
Colour:	black	
Cleaner for tools:	Water (if no initial curing has taken place)	
GISCODE:	RE 1 (epoxy resin products, solvent-free)	
CE Norm as per DIN EN13813**:**	CE-label: EN 13813 SR-AR1-B3,3	
Mechanical properties:	**Test report no. P 3835-15 of Polymer Institute Flörsheim**	
As intermediate layer of EP-self-levelling coating, conductive		
Electrostatic properties:	Measuring voltage 100 V	
Resistance to earth DIN EN 1081	between 10^4 Ohm and 10^6 Ohm	
Resistance to earth DIN EN 61340-5-1	between 10^4 Ohm and 10^6 Ohm	
With compliance with material application between 0.12 to 0.15 kg/m² , resistance to earth lies between 10^4 Ohm and 10^6 Ohm		

Available bundle sizes 2 K EP-conductive lacquer WE

2 – component bundles (packed compatible in weight to each other):

Art.-no:	**Bundle content:**	**Bundle composition:**
03 25 03 0000-Y83	**9.00 kg**	Comp.A: 7.50 kg; Comp.B: 1.50 kg

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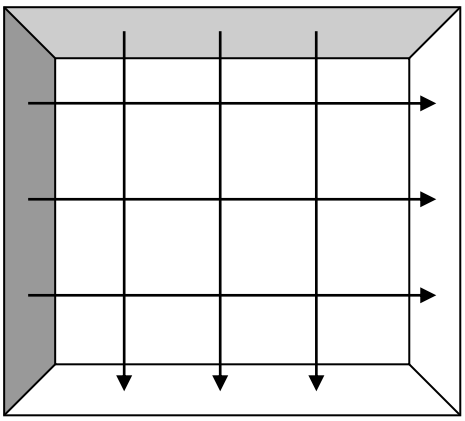
Technical data sheet date 01.10.2010

Assessing the requirement of copper strip

First way of laying out the copper strip:

Use case: large, rather square surfaces

Base area 400 m² with 20 metres side length at a time, display copper strip every 5 metres and let it overlap upwards on the edge 30 cm minimum:
6 blanks x 20,6 r.m. = 123,6 r.m. on the floor
Total demand minimum: 123,6 r.m., corresponds to 7 rolls of copper strip with 20 r.m./roll
10 - 20 % surcharge are recommendable for balancing possible overlaps or the like
Rule of thumb for lattice layout: per m² 0,5 r.m. of copper strip and you are on the „safe side“.



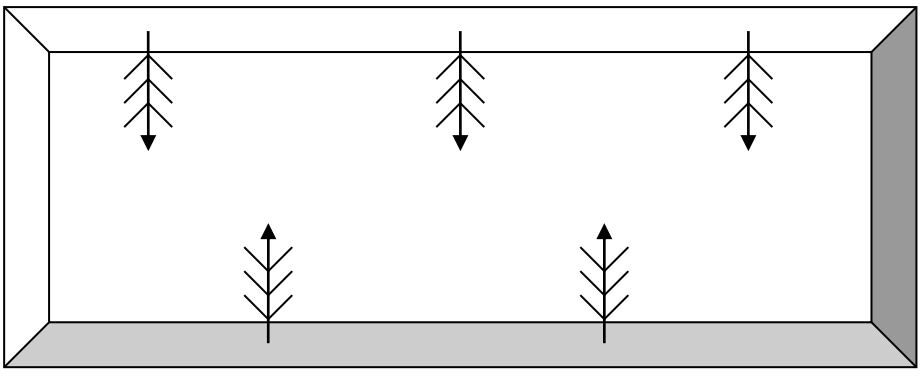
Frequently used ways for connecting the conduction:

- radiators
- frequently CNC machines
- sockets

We recommend consulting an electrician for displaying the copper strips as he needs to connect them to the earth.

Second way of laying out the copper strip:

Use case: rather smaller surfaces or elongated surfaces



Base area 20 r.m. length x 5 r.m. width = 100 m² (Conductive points should not diverge more than 5 m from each other)
The copper strip can be displayed fan-shaped, as shown above, in different but evenly distributed places. One „conductive arrow“ is ~ 1 m (can be elongated) + 30 cm overlap and 6 fans at ~30 cm, results in 3.1 r.m. copper strip per conductive arrow, multiplied by 5 = 15.5 r.m. plus ~ 30 % safety margin (we recommend a higher margin) = 20.15 r.m. = ~ 1 roll

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