
Sika® Unitherm® Platinum-120

DECLARATION OF PERFORMANCE

No. 16745979

1	UNIQUE IDENTIFICATION CODE OF THE PRODUCT-TYPE:	16745979
2	INTENDED USE/S	EAD 350402-00-1106: ETA 20/1162:2020 Reactive Coating for the Fire Protection of Steel Elements
3	MANUFACTURER:	Sika Services AG Tüffenwies 16-22 8064 Zürich Switzerland
4	AUTHORISED REPRESENTATIVE:	
5	SYSTEM/S OF AVCP:	System 1
6b	EUROPEAN ASSESSMENT DOCUMENT:	EAD 350402-00-1106
	European Technical Assessment:	ETA 20/1162 of 18/12/2020
	Technical Assessment Body:	FIRES, S.R.O.
	Notified body/ies:	0761, 1396

7 DECLARED PERFORMANCE/S

Sika® Unitherm® Platinum-120 has been assessed as being compatible with the following primers:

Primers and Primer Sets				
Primer Reference	Primer Type	Tested Nominal Primer DFT (mm)	Permitted Primer Thickness Range (mm) ¹	
			Minimum ¹	Maximum
Sika® Permacor®-2706 EG	Two component epoxy ²	0.060	0.030	0.090
Sika® Permacor®-1705	Solvent containing single component zinc-phosphate primer ²	0.060	0.030	0.090
SikaCor® Zinc R	Zinc-rich epoxy ²	0.080	0.040	0.120
SikaCor® Zinc W	Zinc-rich epoxy ²	0.080	0.040	0.120
SikaCor® Zinc ZS / Sika® Permacor®-2706 EG	A single pack high pigmented zinc rich primer based on ethyl silicate / A two pack epoxy primer ²	0.120 (0.060/0.060)	0.096 (0.048/0.048) ⁷	0.144 (0.072/0.072) ⁷
Sika® Permacor®-2029 (corroded) ⁴	Please see comments under the table ⁴	0.100	0.050	0.150
No primer coat ⁵	-	-	-	-
Sika® Permacor®-2706 EG (galvanized) ⁶	Two component epoxy	0.275	0.138	0.413

DFT: Dry Film Thickness

¹ The permitted theoretical minimum or maximum DFT cannot be less or exceed the DFT for each product as recommended by manufacturer. The practical information given in product data sheet must be followed

² The generic approval is applicable to other primers from the same generic group when applied directly to suitable prepared steel

³ The approval is applicable to the specific primer/primer set when applied directly to suitable prepared steel

⁴ The approval is applicable to the specific primer. Steel plate was shot blast cleaned to ISO 8501-1 Sa2.5 and left outside before steel plate got covered with rust but no pitting visible. The hand tool cleaning method was used to prepare steel surface using wire brush before application of Sika® Permacor®-2029

⁵ The Sika® Unitherm® Platinum-120 has been tested and assessed as being capable of maintaining fire resistance performance when applied directly to steel sections blast cleaned to ISO 8501-1 Sa2.5 or equivalent

⁶ The approval is applicable to the specific primer only for application on galvanized steel

⁷ Each product should be increase/reduced as recommended by the manufacturer in order to ensure compatibility

Sika® Unitherm® Platinum-120 has been assessed as being compatible with the following topcoats:

Topcoats				
Topcoat Reference ¹	Topcoat Description	Tested Nominal Topcoat DFT (mm)	Permitted Topcoat Thickness Range (mm)	
			Minimum	Maximum ²
Sika® Permacor®-2330	A two pack Acrylic-Polyurethane topcoat	0.075/0.090	0.075	0.135
Sika® Unitherm® Top S	A high build single pack topcoat	0.060	0.060	0.090
Sika® Unitherm® Top W	A single pack topcoat	0.060	0.060	0.090
Sika® Permacor®-2230 VHS	A two pack Acrylic-Polyurethane topcoat	0.090	0.090	0.135
SikaCor® EG-4	A two pack Polyurethane topcoat	0.090	0.090	0.135
SikaCor® EG-5	A two pack Polyurethane topcoat with good gloss and colour retention	0.090	0.090	0.135
SikaCor® PUR Color	A two pack silky matt topcoat based on aliphatic polyurethane containing zinc phosphate as an active pigment	0.080	0.080	0.120
Sika® Permacor®-2707	A two pack epoxy topcoat with high mechanical resistance and excellent chemical resistance to aqueous and alkaline exposure	0.080	0.080	0.120

¹ The approval is limited to the specific product.

² The permitted theoretical maximum DFT cannot exceed the DFT for each product as recommended by the manufacturer. The practical information given by the manufacturer must be followed

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Sika® Unitherm® Platinum-120 has been assessed as having passed the requirements for durability according to EAD 350402-00-1106 with and without the following topcoats:

Top Coat Reference ¹	Topcoat Description ¹	Approved Top Coat Colours	Durability Approvals Based On The Carried Out Testing			
			Type Z ₂	Type Z ₁	Type Y	Type X
No Top Coat	-	-	✓	✓	✓	✓
Sika® Permacor®-2330	A two pack Acrylic-Polyurethane topcoat	All Colours	✓	✓	✓	✓
Sika® Unitherm® Top S	A high build single pack topcoat	All Colours	✓	✓		
Sika® Unitherm® Top W	A single pack topcoat	All Colours	✓	✓		
Sika® Permacor®-2230 VHS	A two pack Acrylic-Polyurethane topcoat	All Colours	✓	✓		
SikaCor® EG-4	A two pack Polyurethane topcoat	All Colours	✓	✓		
SikaCor® EG-5	A two pack Polyurethane topcoat with good gloss and colour retention	All Colours	✓	✓		
SikaCor® PUR Color	A two pack silky matt topcoat based on aliphatic polyurethane containing zinc phosphate as an active pigment	All Colours	✓	✓		
Sika® Permacor®-2707	A two pack epoxy topcoat with high mechanical resistance and excellent chemical resistance to aqueous and alkaline exposure	All Colours	✓	✓		

¹ The approval is limited to the specific product.

Sika® Unitherm® Platinum-120 has been assessed as having passed the requirements for use in internal, internal with high humidity, semi-exposed and exposed conditions defined in EAD 350402-00-1106 for Type X environmental conditions and can be use with and without the following topcoat:

Top Coat Reference	Topcoat Description	Approved Top Coat Colours
No Top Coat	-	-
Sika® Permacor®-2330	A two pack Acrylic-Polyurethane topcoat	All Colours

On the basis of passing the Type X requirements Sika® Unitherm® Platinum-120 has been assessed as having also passed the requirements for internal, internal conditions with high humidity and semi-exposed use defined in EAD 350402-00-1106 for Type Z₁, Type Z₂ and Type Y environmental conditions and can be used with and without the above topcoat.

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After passing the Type x requirements Sika® Unitherm® Platinum-120 has been assessed as having also passed the requirements for internal, internal conditions with high humidity and semi-exposed use defined in EAD 350402-00-1106 for Type Z₁ and Type Z₂ environmental conditions and can be used with and without the above topcoat.

Top Coat Reference	Topcoat Description	Approved Top Coat Colours
No Top Coat	-	-
Sika® Permacor®-2330	A two pack Acrylic-Polyurethane topcoat	All Colours
Sika® Unitherm® Top S	A high build single pack topcoat	All Colours
Sika® Unitherm® Top W	A single pack topcoat	All Colours
Sika® Permacor®-2230 VHS	A two pack Acrylic-Polyurethane topcoat	All Colours
SikaCor® EG-4	A two pack Polyurethane topcoat	All Colours
SikaCor® EG-5	A two pack Polyurethane topcoat with good gloss and colour retention	All Colours
SikaCor® PUR Color	A two pack silky matt topcoat based on aliphatic polyurethane containing zinc phosphate as an active pigment	All Colours
Sika® Permacor®-2707	A two pack epoxy topcoat with high mechanical resistance and excellent chemical resistance to aqueous and alkaline exposure	All Colours

Sika® Unitherm® Platinum-120 was subjected to the identification testing in accordance with the methods of identification defined in Table 4 of EAD 350402-00-1106. Tests for 'fingerprinting' as described in Annex E (Thermoanalytical analyses (TG) and Infrared spectroscopy analyses (IR)) have been done and reported in the MPA Brunswick Test Report No. 2300/981/18 – 4/2019Br/Mü vom 12.02.2019.

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Sika® Unitherm® Platinum-120 protection systems have been also assessed as having passed the requirements for the following environmental conditions:

Primer Reference	Primer Type	Topcoat Reference	Topcoat Description	Durability Approvals Based On The Carried Out Testing ¹
No primer coat ²	-	No Top Coat	-	C3medium, 120h Water Condensation – ISO 12944
No primer coat ²	-	Sika® Permacor®-2330	A two pack Acrylic-Polyurethane topcoat	C3high, 480h Neutral salt spray – ISO 12944
No primer coat ²	-	No Top Coat	-	C3high, 240h Water Condensation – ISO 12944
Sika® Permacor®-2706 EG	Two component epoxy	No Top Coat	-	C4medium, 240 h Water Condensation – ISO 12944
Sika® Permacor®-2706 EG	Two component epoxy	Sika® Permacor®-2330	A two pack Acrylic-Polyurethane topcoat	C5high, 720 h Water Condensation – ISO 12944
Sika® Permacor®-2706 EG	Two component epoxy	Sika® Permacor®-2330	A two pack Acrylic-Polyurethane topcoat	C5high, 1440 h Neutral salt spray – ISO 12944
SikaCor® Zinc R	Zinc rich epoxy	Sika® Permacor®-2330	A two pack Acrylic-Polyurethane topcoat	C5very high, 2688h – ISO 12944
No primer coat ²	-	No Top Coat	-	Immersion in solvent: Kristallöl 30, 168h – ISO 2812-1
Sika® Permacor®-2706 EG	Two component epoxy	No Top Coat	-	Immersion in solvent: Kristallöl 30, 168h – ISO 2812-1
Sika® Permacor®-2706 EG	Two component epoxy	Sika® Permacor®-2330	A two pack Acrylic-Polyurethane topcoat	Immersion in solvent: Kristallöl 30, 168h – ISO 2812-1
Sika® Permacor®-2706 EG	Two component epoxy	No Top Coat	-	Immersion in 10% NaOH aqueous solution, 168h – ISO 2812-1
Sika® Permacor®-2706 EG	Two component epoxy	Sika® Permacor®-2330	A two pack Acrylic-Polyurethane topcoat	Immersion in 10% NaOH aqueous solution, 168h – ISO 2812-1
Sika® Permacor®-2706 EG	Two component epoxy	Sika® Permacor®-2330	A two pack Acrylic-Polyurethane topcoat	Immersion in 10% H ₂ SO ₄ aqueous solution, 168h – ISO 2812-1
Sika® Permacor®-2706 EG	Two component epoxy	No Top Coat	-	Waterjetting for 3 minutes at 200 bar pressure at ambient temperature ³

¹ The approval is limited to the specific protection system. It is assumed that steel will be prepared in a similar manner to that used for the specimens tested. It is also assumed that the thickness of the primer paint and topcoat will be nominally similar to that applied to tested specimens

² The Sika® Unitherm® Platinum-120 has been applied directly to Steel substrates blast cleaned to ISO 8501-1 Sa2.5

³ The coated plate was positioned at 45° angle and cleaned with continuous movements over the coated surface from approximately 200mm distance with ambient temperature water at 200 bar pressure for the duration of 3 minutes

Product: Reactive coating		Intended use: Fire protection of structural steel elements
Assessment method	Essential characteristic	Product performance
BASIC WORKS REQUIREMENT 2: SAFETY IN CASE OF FIRE		
EN 13501-1	Reaction to fire	Class B – s2, d0
EN 13501-2	Fire resistance	(R15 to R120) - IncSlow (I/H Beams and Columns) and (R15 to R120) - IncSlow (Circular and Rectangular/Square Hollow Columns) (see Annex A)

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Assessment method	Essential characteristic	Product performance
BASIC WORKS REQUIREMENT 3: HYGIENE, HEALTH AND THE ENVIRONMENT		
Manufacturer's declaration and EN 16516	Content, emission and or release of dangerous substances	Product specification doesn't contain dangerous substances given in Annex XVII of REACH and the ECHA Candidate List of Substances of Very High Concern Use categories: IA1 and S/W2 Results for reactive coating to EN 16516 after 28 days: TVOC (33µg/m ³) and TSVOC (<5 µg/m ³)
BASIC WORKS REQUIREMENT 4: SAFETY AND ACCESSIBILITY IN USE		
EAD 350402-00-1106 Clause 2.2.4 and Clause 2.2.5	Adhesion and Durability	<ul style="list-style-type: none"> • Primer and topcoat compatibility • Type X durability • Type Y durability • Type Z₁ durability • Type Z₂ durability
EAD 350402-00-1106 Clause 2.2.5	Durability	<ul style="list-style-type: none"> • C3med, 120h Water Condensation – ISO 12944 • C3high, 480h Neutral salt spray – ISO 12944 • C3high, 240 h Water Condensation – ISO 12944 • C4med, 240 h Water Condensation – ISO 12944 • C5high, 720 h Water Condensation – ISO 12944 • C5high, 1440 h Neutral salt spray – ISO 12944 • C5very high, 2688h – ISO 12944 • Immersion in Solvent: Kristallöl 30, 168h – ISO 2812-1 • Immersion in 10% NaOH aqueous solution, 168h – ISO 2812-1 • Immersion in 10% H₂SO₄ aqueous solution, 168h – ISO 2812-1 • Waterjetting for 3 minutes at 200 bar pressure at ambient temperature
EAD 350402-00-1106 Clause 2.3.5	Identification	Thermoanalytical analyses (TG), Infrared spectroscopy analyses (IR), density and non-volatile content

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**8 APPROPRIATE TECHNICAL DOCUMENTATION AND/OR -
SPECIFIC TECHNICAL DOCUMENTATION**

The performance of the product identified above is in conformity with the set of declared performance/s. This declaration of performance is issued, in accordance with Regulation (EU) No 305/2011, under the sole responsibility of the manufacturer identified above.

Signed for and on behalf of the manufacturer by:

Name: Thomas Kerkmann
Function: Head of Industrial Coatings

Name: Robin Rohleder
Function: Market field Manager Fire protection

At Vaihingen on 28 May 2021

At Vaihingen on 28 May 2021

Thomas Kerkmann

Robin Rohleder


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End of information as required by Regulation (EU) No 305/2011



FULL CE MARKING

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Sika Service AG	
DoP no. 16745979	
EAD 350402-00-1106; ETA 20/1162:2020	
Notified Body 0761, 1396	
Reactive Coating for the Fire Protection of Steel Elements	
Reaction to fire	Class B – s2, d0
Fire resistance	(R15 to R120) – IncSlow (I/H Beams and Columns) and (R15 to R120) - IncSlow (Circular and Rectangular/Square Hollow Columns)
Release of dangerous substances	Product specification doesn't contain dangerous substances given in Annex XVII of REACH and the ECHA Candidate List of Substances of Very High Concern
Adhesion and Durability	<ul style="list-style-type: none"> • Primer and topcoat compatibility • Type X durability • Type Y durability • Type Z₁ durability • Type Z₂ durability
Durability	<ul style="list-style-type: none"> • C3med, 120h Water Condensation – ISO 12944 • C3high, 480h Neutral salt spray – ISO 12944 • C3high, 240 h Water Condensation – ISO 12944 • C4med, 240 h Water Condensation – ISO 12944 • C5high, 720 h Water Condensation – ISO 12944 • C5high, 1440 h Neutral salt spray – ISO 12944 • C5very high, 2688h – ISO 12944 • Immersion in Solvent: Kristallöl 30, 168h – ISO 2812-1 • Immersion in 10% NaOH aqueous solution, 168h – ISO 2812-1 • Immersion in 10% H₂SO₄ aqueous solution, 168h – ISO 2812-1 • Waterjetting for 3 minutes at 200 bar pressure at ambient temperature
Identification	Thermoanalytical analyses (TG), Infrared spectroscopy analyses (IR), density and non-volatile content

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ECOLOGY, HEALTH AND SAFETY INFORMATION (REACH)

For information and advice on the safe handling, storage and disposal of chemical products, users shall refer to the most recent Safety Data Sheet (SDS) containing physical, ecological, toxicological and other safety related data.

LEGAL NOTE

The information, and, in particular, the recommendations relating to the application and end-use of Sika products, are given in good faith based on Sika's current knowledge and experience of the products when properly stored, handled and applied under normal conditions in accordance with Sikas recommendations. In practice, the differences in materials, substrates and actual site conditions are such that no warranty in respect of merchantability or of fitness for a particular purpose, nor any liability arising out of any legal relationship whatsoever, can be inferred either from this information, or from any written recommendations, or from any other advice offered. The user of the product must test the products suitability for the intended application and purpose. Sika reserves the right to change the properties of its products. The proprietary rights of third parties must be observed. All orders are accepted subject to our current terms of sale and delivery. Users must always refer to the most recent issue of the local Product Data Sheet for the product concerned, copies of which will be supplied on request.

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