BUILDING TRUST

PRODUCT DATA SHEET

Sika® Pyroplast® Wood P

Water based fire protective coating system for wood, interior use

DESCRIPTION

Sika® Pyroplast® Wood P is an ecological water based fire protection coating for interior use which forms a carbon char under the effect of heat.
Sika® Pyroplast® Wood P is tested to provide spread-of-flame protection and delays the inflammation of natural wood and wood derivates.
Sika® Pyroplast® Wood P emphasizes the interior design of timber structures and provides an attractive option to architects, builders and end-users.

USES

Sika® Pyroplast® Wood P may only be used by experienced professionals.

Reduction of ignitability of soft- and hardwood ≥ 10 mm thickness and other timber derivatives, i.e. plywood, chipboard, fibre insulation board, hardboard and also on veneering ≥ 13 mm thickness.
Insulates against heat, checks fire, prevents propagation of fire and spread of flame and diminishes flue-gas temperatures.
Sika® Pyroplast® Wood P should not be used in areas of high humidity, heat sources or on surfaces where significant physical impact is likely such as floors, stairs, etc.

CHARACTERISTICS / ADVANTAGES

- Ecological water based coating system
- VOC Sika® Pyroplast® Wood P: < 1 g/l
- VOC Sika® Pyroplast® Top W: < 48 g/l
- Free of halogens and aromatic solvents
- Low material consumption
- Simple application
- No additional statical load of coating
- Individual coloration possible with topcoat Sika® Pyroplast® Top W

APPROVALS / STANDARDS

Independently fire tested and approved to European classification:
- EN 13501-1 (ref: K-3067/776/14-2)

PRODUCT INFORMATION

Packaging	Sika® Pyroplast® Wood P Primer	5 kg net.
	Sika® Pyroplast® Wood P	25 kg and 5 kg net.
	Sika® Pyroplast® Top W	11 kg and 3 l net.
Appearance / Colour	Sika® Pyroplast® Wood P Primer	White
	Sika® Pyroplast® Wood P	White
	Sika® Pyroplast® Top W	Available in all RAL colours, others available on request
Shelf Life	18 months	
Storage Conditions	In originally sealed containers in a cool and dry environment. **Protect against frost!**	
Density	Sika® Pyroplast® Wood P Primer	~1.29 g/cm³
	Sika® Pyroplast® Wood P	~1.29 g/cm³
	Sika® Pyroplast® Top W	~1.26 g/cm³
Flash Point	Sika® Pyroplast® Wood P Primer	Not applicable
	Sika® Pyroplast® Wood P	Not applicable
	Sika® Pyroplast® Top W	Not applicable
Solid Content	Sika® Pyroplast® Wood P Primer	~52 % by weight (ISO 3251)
	Sika® Pyroplast® Wood P	~65 % by weight
	Sika® Pyroplast® Top W	~52 % by weight

SYSTEM INFORMATION

Systems	Tie coat (depending on wood surface):	Sika® Pyroplast® Wood P Primer
	Intumescent coating:	Sika® Pyroplast® Wood P
	Topcoat (optional):	Sika® Pyroplast® Top W

APPLICATION INFORMATION

Consumption

1 × 120 g/m² Sika® Pyroplast® Wood P Primer (depending on wood surface)
1 × ≥ 350 g/m² Sika® Pyroplast® Wood P
plus
1 x 120 g/m² Sika® Pyroplast® Top W (optional)

Consumption rates are based on fire performance according EN 13501-1

B EN 13823 FIGRA ≤ 120 W/s und LFS < edge of specimen and THR_{600s} ≤ 7,5 MJ
and
EN ISO 11925-2 Exposure = 30 s Fs < 150 mm within 60 s

s1 SMOGRA ≤ 30 m² / s2 and TSP_{600s} ≤ 50 m²

d0 No flaming droplets/ particles in EN 13823 within 600 s

(As entire coating system. If no Topcoat is applied, classification **Bs2d0** is met!)
If consumption rates for alternative standards are requested, please consult the Technical Department of Sika Deutschland GmbH.

Relative Air Humidity

Max. 80 %, application temperature shall be at least ≥ 3 K above dew point.
During application and drying of total Sika® Pyroplast® Wood coating system including Sika® Pyroplast® Top W as well as transportation special protection measures must be taken against weathering.

	For Sika® Pyroplast® Wood P Primer, Sika® Pyroplast® Wood P and Sika® Pyroplast® Top W.
Substrate Temperature	Object temperature not below + 10°C, to max. + 40°C* * If higher temperatures occur, please consult the Technical department for further assistance. For Sika® Pyroplast® Wood P Primer, Sika® Pyroplast® Wood P and Sika® Pyroplast® Top W.
Substrate Moisture Content	At high moisture content of the timber (> 15%), the coating is unlikely to dry satisfactorily and blooming may result. Therefore the moisture content of the timber should be, as near as possible to the level it will stabilise at in use. For Sika® Pyroplast® Wood P Primer, Sika® Pyroplast® Wood P and Sika® Pyroplast® Top W.
Waiting Time / Overcoating	Sika® Pyroplast® Wood P requires a minimum of 24 h drying prior to application with itself. Overcoatable with topcoat Sika® Pyroplast® Top W after approx. 48 hours. A complete drying of the fire protection coating prior topcoat application is highly recommended. Through-drying of Sika® Pyroplast® Wood P can be checked by 'fingernail-test'. Prior to further applications possible contaminations must be removed.
Drying Time	**Drying/Curing** At approx. + 20°C temperature and 60 % relative humidity. Sika® Pyroplast® Wood P Primer: Touch dry — after ~3 h Overcoating — after ~6-8 h Sika® Pyroplast® Wood P: Touch dry — after ~6 h Overcoating — after ~24 h with itself Overcoating — after ~48 h with Sika® Pyroplast® Top W Sika® Pyroplast® Top W: Touch dry — after ~2 h Fully dry — after ~24 h Different temperatures, different relative humidity and different fire protection coating thickness have an influence on drying time.

BASIS OF PRODUCT DATA

All technical data stated in this Product Data Sheet are based on laboratory tests. Actual measured data may vary due to circumstances beyond our control.

FURTHER DOCUMENTS

Various advisory notes.
For further information please consult Sika or visit us at www.sika.de

ECOLOGY

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.

DIRECTIVE 2004/42/CE - LIMITATION OF EMISSIONS OF VOC

According to the EU Directive 2004/42/CE, the maximum allowed content of VOC (product category IIA / g type Wb) is 30 g/l (Limits 2010) for the ready to use product.

The maximum content of Sika® Pyroplast® Wood P Primer is < 20 g/l VOC for the ready to use product.

According to the EU Directive 2004/42/CE, the maximum allowed content of VOC (product category IIA / i type Wb) is 140 g/l (Limits 2010) for the ready to use product.

The maximum content of Sika® Pyroplast® Wood P is < 0 g/l VOC for the ready to use product.

According to the EU Directive 2004/42/CE, the maximum allowed content of VOC (product category IIA / i type Sb) is 130 g/l (Limits 2010) for the ready to use product.

The maximum content of Sika® Pyroplast® Top W is

< 48 g/l VOC for the ready to use product.

APPLICATION INSTRUCTIONS

SUBSTRATE PREPARATION

Substrate must be dry, free from dust, oil, wax, grease, dirt, resin, etc.; Existing coatings with poor adhesion have to be completely removed, e.g. with solvent-based paint stripper or to be sand down. Surfaces that have been treated with non-acid resistant coatings or release agents such as emulsion paints containing lime, chalk or lithopone should be sand down completely. Timber substrates with wetting difficulties should be roughened thoroughly with abrasive paper.The moisture content of the timber should be below 15 %.

Pre-treatment with wood preservatives
If resistance to wet rot, fungi or insect attack is requested, we recommend using commercial preservative agents based on oil-alkyd resins provided they are compatible with the Sika® Pyroplast® fire protection system.
Apply Sika® Pyroplast® fire protection coating system only after the preservative treatment is completely dry. The moisture content of the timber should be below 15 %. Sika® Pyroplast® Wood P Primer may be used to allow sufficient adhesion or avoid diffusion of wood ingredients on resinous wood.

MIXING

Stir thoroughly, free of lumps.

APPLICATION

The method of application has a major effect on achieving uniform thickness and appearance. Spray application will give the best results. The indicated dry film thickness is easily achieved by airless spray. In case of application by roller or brush, additional layers may become necessary to achieve the required coating thickness, depending on type of construction, site conditions, colour shade etc. Prior to application a trial on site may be useful to ensure that the selected application method will provide the requested results.

Airless spraying:
- Material shall be applied undiluted
- Airless spray equipment with pressure ratio ≥ 30 : 1
- Filters should be removed
- Hose diameter not below ⅜ "
- Whipline 1.5 - 2 m, NW 6, may be used
- Recommended nozzle sizes:
  Sika® Pyroplast® Wood P Primer: 0.27 - 0.34 mm (0.011 - 0.017 inch)
  Sika® Pyroplast® Wood P: 0.34 - 0.64 mm (0.017 - 0.025 inch)
  Sika® Pyroplast® Top W: 0.27 - 0.56 mm (0.011 - 0.023)

- Hoses must be used for water based products only

Above data shall be used as a guideline with variations being made to suit local conditions.

Brushing and rolling:

- Material shall be applied in supply viscosity
- Load natural fine bristle brushes or short pile lambswool rollers are recommended
- Application of two coats of Sika® Pyroplast® Wood P to a load of 175 g/m² each coat is recommended

CLEANING OF TOOLS

Immediately after use with water.

LOCAL RESTRICTIONS

Please note that as a result of specific local regulations the declared data for this product may vary from country to country. Please consult the local Product Data Sheet for the exact product data.

LEGAL NOTES

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 Sika's 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 product's 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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