



Product Information Sheet

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PE120

Description

PE120 is an epoxy-based acid resistant primer or expansion joint material designed to seal and enhance existing concrete or metal surfaces. PE120 is a black plasticized epoxy system composed of a blended epoxy solution and hardener, combined with compatible carbon-pitch additives, to produce a permanently flexible compound with excellent adhesion to most dry surfaces.

PE120 will form a membrane on the substrate surface improving resistance to abrasion, impact and staining. It is provided in two-component format comprising, an epoxy solution and an epoxy-based hardener.

Typical Uses

PE120 may also be used to renovate friable stone or brick surface. Other applications include use as a penetrative primer to provide a key prior to laying an epoxy or other resin-based flooring and chemical resistant tiles or bricks. Easy to apply, it provides an attractive low sheen to the surface, rendering it non-dusty, with resistance to oil and an extensive range of aggressive chemicals. It also makes the floor waterproof so cleaning becomes much easier. PE120 can also be used as an expansion joint material for concrete and tile preparations.

Advantages

In comparison with more traditional paints or primers, PE120 shows a great advantage in that it becomes part of the concrete and will therefore not flake off. It can actually restore defective screed due to its penetrative qualities. The poorer the condition of the screed the greater the impregnation and therefore the strengthening effect. It can be used in conjunction with glass cloth and mats, to build up a membrane, typically being applied between two or more coatings of PE120 to form a composite material such as PE120-GM290.

Chemical Resistance

Full details are available on ACCS website: www.protectivelinings.co.uk. PE120 will not withstand high concentrations of some strong oxidizing acids such as sulphuric or nitric.

Surface Preparation

For all pre-existing surfaces of concrete or metal, abrasive blast or scarify to remove all laitance and surface contaminants. The surface should be dust-free and dry and the ambient temperature should be above

the dew point of air.

Application

The primer comprises an epoxy solution and an epoxy-based hardener. Nominal primer thicknesses above concrete surface of up to 1mm are recommended. Values are an intended guide.

Mixing Ratio	1 part Solution to 1 part Hardener
By weight	~25kg Solution to 25kg Hardener
By volume	~1L Solution to 1L Hardener

Using a paddle mixer, place Hardener in mixing vessel and mix thoroughly for at least 3 minutes. Once Hardener has been thoroughly homogenised, add Solution component and mix again for 3 minutes.

Apply by paint brush or roller, for large areas a soft sweeping brush is best. Apply until absorption of concrete is satisfied without allowing the materials to form into pools or flood the area. Leave to cure, and if necessary apply second coat 12-16 hours but not later than 48 hours after the first, to even off the finish and give an attractive gloss. To create an expansion joint, apply by pouring into joints and allowing a natural level to be found. Leave to cure, and if necessary after 12-16 hours apply a top up layer if expansion joint is not flush with concrete surface but not later than 48 hours after the first, to even off the finish and give an attractive gloss. In the case of substantial falls, powder filler can be supplied to combine with the liquid mix to prevent flow and yet retain the properties of adhesion and flexibility.

Where a secondary epoxy or other resin-based flooring layer is scheduled, the application of a fine quartz scatter before full cure is recommended to provide a key for subsequent layers.

All tools and equipment should be cleaned off with solvents and damp cloths to ensure their continued use.

Pot-Life

at 20°C – 60mins
 at 30°C – 40mins
 at 40°C – 25mins



ACCS Ltd

Industrial Protective Linings

Unit 6, Scott Lidgett Industrial Estate,
Scott Lidgett Road, Longport,
Stoke-On-Trent, ST6 4NQ, United Kingdom
Tel: +44 (0) 1782 817 107
Tel: +44 (0) 1782 824 979
Email: info@accsltd.co.uk
Skype: accs.ltd
Registered in England: 6090394
VAT No GB 880-1983-03
www.protectivelinings.co.uk

An initial set occurs approximately 4hours after mixing, light foot traffic permissible after 12hours and with a full chemical cure occurring after 5-7days. PE120 should never be exposed to water, steam or chemical environments before the primer is completely cured.

Note: Do not mix more material than required by pot-life. It cannot be reconstituted. Never add unapproved materials to the mix, in particular water. After mixing spread out on to a surface to avoid self – generated heat. Large mixed volumes that are not thinned will flash set, becoming extremely hot and producing smoke.

Coverage

Typical primer coverage on a relatively smooth concrete surface for a mixed PE120 system is 0.5kg/m² at 1mm thickness. Values are approximate requirements.

Standard Packing

Solution – 25kg in 25L UN drums (24 per pallet)
Hardener – 25kg in 25L UN drums (24 per pallet)

Storage

Store in a cool, dry, frost-free place. Normal storage conditions in up to 25°C should provide shelf life of:

Solution – 12 months

Hardener – 12 months

Do not store a combined stack of Solution and Hardener components. Accidental leakage could lead to flash setting of material, producing smoke. Storage at, or exposure to, high temperatures may initiate a setting reaction.

Safety

Safety data information available on request. Adequate ventilation must be provided whilst work is in progress

and is compulsory for closed or indoor applications. The instructions on storage, fire and explosion are to be observed. No releases to the sewers or drains are to be permitted under any circumstances. Always refer to MSDS data sheets for hazard and transport information.

It is pertinent to mention that PE120 is flammable and all sources of ignition; naked flames etc should be removed. Ventilation is required with special consideration for enclosed or confined areas. Air movement must be designed to ensure turnover at all locations in work area and adjacent areas to avoid build-up of heavy vapours.

Warranty

We warrant that our products will conform to the description contained in the order and that we have good title in all goods sold. WE PROVIDE NO WARRANTY, WHETHER OF MERCHANTABILITY, FITNESS FOR PURPOSE, OR OTHERWISE, EXPRESS OR IMPLIED, OTHER THAN AS EXPRESSED SET FORTH HEREIN. We are glad to offer suggestions or to refer you to customers using ACCS Ltd cements and compounds for similar applications. Users shall determine the suitability of the product for intended application before using, and users assume all risk and liability whatsoever in connection therewith regardless of any suggestions as to application or construction. In no event shall we be liable hereunder or otherwise for incidental or consequential damages. Our liability and your exclusive remedy hereunder or otherwise, in law or in equity, shall be expressly limited to our replacement of non-conforming goods at our factory or, at our sole option, to repayment of the purchase price of non-conforming goods.

Technical Data

Parameter	Test Method	Unit	Value
Density		kg/m ³	1180
Specific Volume		m ³ /tonne	0.84
Tensile Strength		N/mm ²	11.5
Compressive Strength		N/mm ²	80
Flexural Strength		N/mm ²	80
Bond strength (wire cut bricks)		N/mm ²	4.2
Coefficient of expansion		10 ⁻⁶ °C	16.0
Water absorption		%	0.25
Maximum Operating Temperature		°C	105
Coverage – mixed primer		m ² /kg	2

Disclaimer

The technical data contained in this document represents the current state of our product knowledge and is for information purposes only. It does not constitute a guarantee or specification.