



CI/SfB

(43)

Y

APRIL 2005
BUILDING DIVISION
PRODUCT DATA SHEET

ARDEX PSRS

Penetrating Screed Renovation System

Features

Rapid installation reducing overall construction time

Overnight renovation of cement/sand screeds

Minimum disruption to occupants

Consolidated screeds can meet BS 8204 Soundness Category A requirement for floor screeds

Solvent free

Low odour



Reg No. FM 1207

ARDEX UK LIMITED
Homefield Road, Haverhill, Suffolk CB9 8QP UK.
Telephone: +44 (0)1440 714939
Fax: +44 (0)1440 716660
Technical Services Fax: +44 (0)1440 716640
Email: technical.services@ardex.co.uk
ARDEX online: www.ardex.co.uk

ARDEX PSRS

Penetrating Screed Renovation System

DESCRIPTION

ARDEX PSRS is an ultra low viscosity, solvent free, two component epoxy resin designed for strengthening and restoring poorly compacted and low strength screeds that do not meet the required in situ crushing resistance. ARDEX PSRS penetrates into the defective screed, filling voids resulting from poor compaction and consolidating loose particles to provide a high strength screed that can meet the highest soundness category given in BS 8204-1 for in situ crushing resistance.

SUBSTRATE PREPARATION

Following the removal of the flooring the surface of the screed should be carefully inspected to establish the most appropriate technique for removal of layers of underlayment or any areas of densely compacted surface. Typically the careful use of a scabbling machine followed by surface grinding should leave the open textured weak screed fully exposed. Thorough vacuuming is essential to remove dust which may impair penetration of the ARDEX PSRS resin. As with all epoxy systems the viscosity of the ARDEX PSRS resin will increase at low temperatures resulting in reduced penetration of the screed and impaired performance. To maximise performance and penetration of the screed the sub-floor should ideally be above 15°C, do not use at temperatures below 10°C. Similarly the ARDEX PSRS resin packs should be conditioned at 15-25°C for 24 hours prior to use.

NOTE: Excessively high temperatures e.g. above 25°C will reduce the working time of the resin and should be avoided.

MOISTURE

ARDEX PSRS system will not penetrate a screed saturated with water. If the screed is wet consult ARDEX Technical Services for advice.

If there is not a functioning DPM beneath the screed and/or the screed is damp, check that the screed will be stable if kept under damp conditions. Rapid drying and gypsum based screeds are generally not stable in the long term under wet conditions.

If the screed is damp and is a cement/sand screed then ARDEX DPM may be applied following consolidation by the ARDEX PSRS system. Consult the ARDEX DPM data sheet for further guidance.

MIXING

The resin and hardening agents are pre-gauged in their original containers to the correct mixing ratio. The hardening agent (component B) is added to the resin (component A) and thoroughly mixed together with a spiral mixing paddle in a slow speed drill until a uniform consistency is achieved. It is important that all the resin components have been mixed.

The ARDEX PSRS is ready for immediate use and has a working time of 20 minutes at 20°C. This is reduced at higher temperatures and extended at lower temperatures. It is recommended that the ARDEX PSRS is poured out and spread immediately after mixing as the reaction is exothermic and the heat generated in the container will reduce the working time. Apply at temperatures above 10°C.

APPLICATION

Immediately after mixing the ARDEX PSRS should be poured over the prepared screed and spread over the surface using a squeegee or roller, moving the material constantly to facilitate even penetration of the screed. Continue applying the ARDEX PSRS system until no more resin is absorbed. Finally scatter ARDEX Fine Aggregate over the surface to provide a "sandpaper" finish as a mechanical key for an application of the appropriate ARDEX smoothing compound and allow to cure. Alternatively apply one coat of ARDEX R 3 E Epoxy Primer and sand blind once the ARDEX PSRS system has cured for at least 4 hours.

COVERAGE

The coverage achieved with ARDEX PSRS system will depend upon the porosity and depth of the screed. Typically a 50mm thick weak cement/sand screed with a BS 8204-1 in situ crushing resistance test value of 8mm will require between 3 and 5kg per square metre of ARDEX PSRS resin.

NOTE: Stronger/denser or more thoroughly compacted areas of the same screed will require less resin.

FINISHING/SMOOTHING

Once the ARDEX PSRS resin has cured, typically 4 hours at 20°C the sand blinded surface may be smoothed, after excess loose sand has been removed, with the appropriate ARDEX smoothing and levelling compound in accordance with the relevant ARDEX data sheet. Deep repairs may be filled using ARDEX A 45 or ARDEX A 35 MIX prior to smoothing.

NOTE: Areas of ARDEX A 45 or ARDEX A 35 MIX should be primed with ARDEX P 51 as appropriate.

PACKAGING

10kg units of ARDEX PSRS are supplied in pre-gauged metal duo containers. The hardener (component B) is in the small container and the resin (component A) is in the larger container with room to mix in the hardener (component B).

STORAGE AND SHELF LIFE

Store in dry conditions. ARDEX PSRS has a storage life of not less than 12 months at above 10°C in the original unopened containers.

TECHNICAL DATA

Mixing ratio	2.52:1
Density	1.08kg (mixed)
Pot life	approximately 10 minutes
Working time	approximately 20 minutes
Over coating	4-24 hours
Walkability at 20°C	after approximately 4 hours

PRECAUTIONS

The hardener which contains 1,3 - Benzodemetanamine and Trimethylhexane - 1,6 - diamine classified as corrosive and the epoxy resin which contains bisphenol A/F-epichlorhydrin, can be irritating to the eyes and skin and may cause sensitisation by contact. They are considered harmful in contact with skin and if swallowed. During mixing and the application the following precautions should be observed: ensure adequate ventilation and avoid contact of the material with the eyes, nasal passages, mouth and unprotected skin. Avoid contact with the hands by wearing protective gloves and using, if necessary, a suitable barrier cream.

In case of contact with the eyes, rinse immediately with plenty of water and seek medical advice and after contact with skin wash immediately with plenty of soap and water (do not use solvents). Prolonged contact with the skin should be avoided, especially where the user has an allergic reaction to epoxide materials. Always wear gloves and eye/face protection as necessary. Observe personal hygiene, particularly washing the hands after work has been completed or at any interruption whilst work is in progress. Care should be taken when removing gloves to avoid contaminating the insides. In case of accidents seek medical advice.

For more detailed health and safety advice consult the relevant health and safety data sheet.

NOTE: The information supplied in our literature or given by our employees is based upon extensive experience and, together with that supplied by our agents or distributors, is given in good faith in order to help you. Our Company policy is one of continuous Research and Development; we therefore reserve the right to update this information at any time without prior notice. We also guarantee the consistent high quality of our products; however, as we have no control over site conditions or the execution of the work, we accept no liability for any loss or damage which may arise as a result thereof.