

WearShield Rapid

Fast Working Epoxy Wear Compound

Description

Sylmasta WearShield Rapid is a fast-setting, two-part epoxy paste heavily filled with alumina beads.

It is applied to equipment, machine parts and surfaces made of metal, wood and most plastics to form a new alumina-reinforced layer, offering ultimate resistance against impact damage, wear, abrasion, corrosion and chemical attack.

WearShield Rapid is used in a variety of industries, from mining to power plants, to protect and repair a diverse range of processing and plant equipment.

It is ideal for repairing heavy damage to ash handling systems, scrubbers, silos, chutes, mills, metal and more.

The short cure time of WearShield Rapid enables equipment to be put back into service within a few hours.

The light consistency makes it easier to mix than stiff and heavy traditional epoxy pastes and it is thixotropic, meaning it will not sag.

WearShield Rapid sets to a grey colour with the alumina beads visible in the cured material.

Applications

- Protecting equipment from impact, wear and abrasion
- Repairing heavy damage to ash handling systems, scrubbers, silos, chutes, mills, metal castings, etc.
- Applications requiring protection against corrosion and chemical attack

Advantages

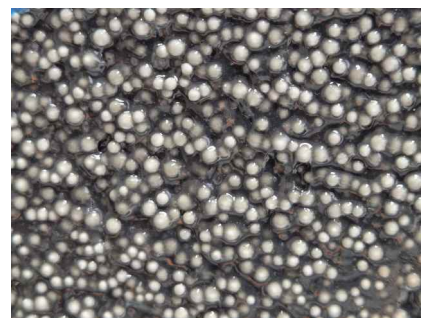
- Alumina filled for very high impact and abrasion resistance
- Non sag
- Easy to mix and apply
- Cures in less than 10 minutes
- Full cure achieved in less three hours, minimising equipment downtime
- Effective on metal, wood and most plastics

Technical Data

Minimum shelf life (months @ 24°C)	24
Mix ratio (weight).....	1:1
Mix ratio (volume)	1:1
Working time (minutes)	5
Functional cure (minutes)	45
Full cure (hours).....	<3
Lap shear strength (MPa)	23
Shore D hardness (full cure, 24 hrs).....	89
Specific gravity (g/cm ³).....	2.12
Shrinkage (%)	<1
Non-volatile content (%).....	100
Maximum service temperature	
Wet (°C).....	60
Dry (°C)	105

(values are typical and should only be used as a guideline)

Whilst all reasonable care is taken in compiling technical data on the Company's products, all recommendations or suggestions regarding the use of such products are made without guarantee, since the conditions of use are beyond the control of the Company. It is the customer's responsibility to satisfy themselves that each product is fit for the purpose for which they intend to use it, that the actual conditions of use are suitable and that in the light of our continual research and development programme the information relating to each product has not been superseded.



Directions for Use**Surface Preparation**

- Surfaces must be prepared prior to application.
- All surfaces must be dry and free of grease. Clean and roughen the surface for optimum adhesion.
- Remove all paint, rust and grime from the surface by abrasive blasting or with sandpaper.
- If applying to aluminium, remove oxidation from surface for optimal adhesion.
- Roughen the surface first, ideally by grit blasting (8-40 mesh grit) or through grinding with a coarse wheel or abrasive disc pad. An abrasive disc may be used provided white metal is revealed. Do not 'feather edge' - WearShield Rapid must be 'locked in' by defined edges and a good 3-5mm profile.
- Metal which has been in contact with seawater or other salt solutions should be grit blasted, high pressure water blasted and then left overnight to allow salts in the metal to 'sweat' to the surface. Repeat this process if necessary to 'sweat out' all of the soluble salts.
 - Test for chloride contamination before application.
 - The maximum soluble salts left on the substrate should be no more than 40 ppm.
- Use a solvent cleaner to remove all traces of sandblasting, grit, oil, grease, dust or other foreign substances.
- In cold working conditions, it is recommended the repair area is heated to 37°C-43°C prior to application. This will dry off any moisture, contamination or solvents for maximum adhesion.
- Apply WearShield Rapid as soon as possible after preparation to avoid oxidation or rusting.

Mixing WearShield Rapid

- Measure 1 part resin to 1 part hardener by volume or weight.
- Transfer measured parts onto a clean, dry and flat surface.
- Mix together with a trowel, other hand tool or stirrer until the epoxy is streak free and a uniform colour.
- When mixing larger quantities, a spiral mixing blade attached to a pneumatic or high torque electric drill can be used.

Application Method

- WearShield Rapid should be applied at room temperature. It can be applied at temperatures as low as 5°C with a longer cure time.
- Spread WearShield Rapid over prepared surface with a putty knife. Press firmly for maximum surface contact and to avoid trapping air.
- Continue application until WearShield Rapid has been built to the desired thickness. This should be at least 6mm.
- To create a smooth surface, apply a small amount of isopropyl alcohol or acetone to a paste spreader or putty knife and smooth the surface. Do not use water as this will leave a white film on the finished surface.
- WearShield Rapid's working time is 5 minutes. A functional cure is achieved in 45 minutes and a full cure in less than three hours.

Packaging

Product Code	Pack Size
PWEAR-RAPID-3kg	3kg
PWEAR-RAPID-13kg	13kg

Storage

WearShield Rapid should be stored out of direct sunlight in dry frost free conditions of temperatures between 15°C and 20°C. Under such conditions, shelf life will be two years from the date of manufacture. The Part B component may develop a skin on the surface, which can be easily removed before use and does not affect the cured properties of the product.

Health & Safety

WearShield Rapid consists of epoxy resins and hardener systems. Please consult the individual Material Safety Data Sheet for hazard information. Wear eye protection and rubber or plastic coated gloves. Wash hands with soap and water immediately after use.

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