

# **DATA SHEET**

### **GENERAL INFORMATION**

**Description:** Two-component epoxy compound in a 1:1 ratio for the repair and protection of equipment and parts exposed to wear due to abrasion, impact and vibration caused by fine particles. Contains 1 mm aluminum oxide ceramic spheres which allow small holes in metal surfaces to be repaired with a smooth finish.





**Product characteristics:** Fast cure (60 minutes) at 25°C (77°F). Excellent adhesion to steel, ceramic and concrete. Thixotropic product does not run or drip when applied on vertical or overhead surfaces. Allows you to resume operations in just 1 hour.

**Main uses:** Repair and protection of pump casings, discharge protection of mills, pneumatic conveyors, screw conveyors, wear plates, sprayers, dust collectors, chippers, protection of pipe elbows, cyclones and hoppers.

## **PHYSICAL PROPERTIES**

The technical information described below should be considered a reference and does not represent a product warranty.

TESTS	RESULTS	UNIT
Appearance/color of the Resin	Viscous/pasty black	VISUAL
Appearance/color of the Hardener	Viscous/pasty white	VISUAL
Component Resin and Hardener mixture color	Dark gray	VISUAL
Specific gravity	2.10	g/cm3
Wet bulb temperature resistance	60/140	°C/°F
Dry bulb temperature resistance	150/302	°C/°F
Mixed viscosity	Pasty/thixotropic	VISUAL
Functional cure light loads 25°C (77°F)	60	MINUTES
Full functional cure heavy loads 25°C (77°F)	90	MINUTES
Pot Life at 25°C (77°F)	35	MINUTES
Second coat cure time	2	HOURS





# **MECHANICAL PROPERTIES**

Typical **Durafast® MX2** applied mechanical properties: Cures at 7 days at 25°C/77°F and 36% humidity:

TESTS	RESULTS	UNIT	TEST METHODS
Adhesion shear strength	10/1,450	N/mm2/PSI	ASTM D1002
Coefficient of thermal expansion	34.0	[(in.)/(in) x °F)] x 10(-6)	ASTM D696
Tensile strength	29.65/4,300	N/mm2/PSI	ASTM D695
Compressive strength	75.84/11,000	N/mm2/PSI	ASTM D695
Cured hardness	87.0	SHORE D	ASTM D2240

TESTS	RESULTS	UNIT	TEST METHODS
Cured shrinkage	0.0008	in./in.	ASTM D2566
Dielectric constant	41.0	-	ASTM D150
Flexural strength	49.22/7,140	N/mm2/PSI	ASTM D790
Reverse impact resistance	7-12/61.8 - 106	N.m/pulg-lb	ASTM D2794
Taber Abrasion	0.001 – 0.004/0.000035 – 0.00014	g/1000 ciclos/oz/100 ciclos	ASTM D4060

#### Application performance of **Durafast® MX2** per 1 kg/2.2 lb of product:

COVERAGE (SI)			
Coating thickness	6 mm	8 mm	10 mm
Coverage area	0.09 m2	0.07 m2	0.05 m2

COVERAGE (IMPERIAL)			
Coating thickness	0.25 in.	0,32 in.	0,39 in.
Coverage area	0.43 ft2	0.35 ft2	0.26 ft2





## **CHEMICAL RESISTANCE**

Chemical resistance of the product is calculated with a 7-day, 25°C (77°F) cure and 30-day immersion.

CHEMISTRY	PERFORMANCE	
1,1,1-Trichloroethane	Very good	
Acetic acid 10%	Poor	
Benzene	Very good	
Gasoline (unleaded)	Fair	
Hydrochloric acid 10%	Very good	
Methanol	Poor	
Methyl ethyl ketone	Very good	
Methylene chloride	Poor	

CHEMISTRY	PERFORMANCE
Nitric acid 50%	Fair
Phosphoric acid 10%	Fair
Potassium hydroxide 40%	Excellent
Sodium hydroxide 50%	Excellent
Sodium hypochlorite	Very good
Sulfuric acid 10%	Very good
Toluene	Excellent
Trisodium phosphate	Very good

### **SURFACE PREPARATION**

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Abrade the surface by grit blasting with 8-40 grit or an abrasive disc pad until white metal appears. The desired profile is 3-5 mil including defined edges.

2 Apply Durafast® Cleaning Solvent to remove all traces of oil, grease, dust or other foreign substances resulting from grit blasting and allow to dry.

### **MIXING AND APPLICATION PROCEDURE**

Remove **Durafast® MX2** component resin and **Durafast® MX2** component hardener from their respective packaging.

**1.1. FOR 2 kg KIT:** Place both components on a smooth, disposable surface (cardboard, wood veneer, or plastic sheet) and mix vigorously using a trowel or shovel tool until a uniform gray consistency is obtained (make sure the mixture maintains a 1:1 ratio).

**1.2. FOR 5 kg AND 10 kg KIT:** Place both components in the plastic bucket provided as the kit packaging and mix using a T-shaped mixing paddle or low viscosity Jiffy Mixer on a power drill. Move the mixer vigorously from the bottom to the top of the bucket until a uniform gray consistency is obtained (make sure the mixture maintains a 1:1 ratio).





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**1.3.** Component Resin tends to crystallize at low temperatures. If this happens, heat the product inside its packaging until it reaches a viscous, putty-like state.

Evenly spread the mixed material over the area to be repaired at a minimum thickness of 6 mm (1/4"), ensuring maximum surface area contact between the substrate and Durafast® MX2.

Wait 60 minutes at 25°C/77°F. Once this time has elapsed, the product will reach its functional cure and the equipment will be ready to operate again.

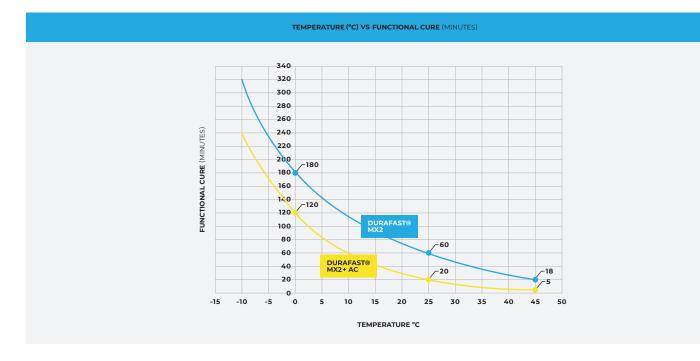
# **NOTES**

**1.** Functional cure times may change based on room temperature at time of application.

2. If you want to speed up the functional cure time, you can use **Durafast® Accelerator** (not included in the kit).

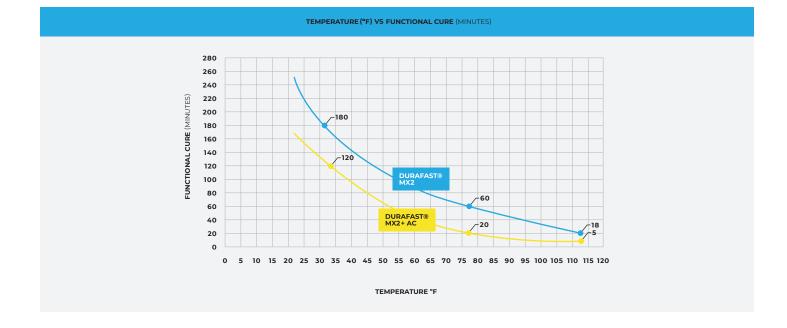
#### **CURE TIMES**

Functional cure times relative to room temperature of **Durafast® MX2** with and without Durafast® Accelerator are shown below:









FOR BRIDGING LARGE GAPS OR HOLES: Place fiberglass sheet or galvanized metal mesh between the area to be repaired and the **Durafast® MX2** prior to application.

**FOR VERTICAL SURFACE APPLICATIONS:** Apply and spread a very thin layer of **Durafast® MX2** to wet the surface and promote adhesion, then continue applying to desired thickness.

### **STORAGE**

Store at room temperature between 20°C (68°F) and 30°C (86°F).

### **ADDITIONAL INFORMATION**

The information in this document is based on technical laboratory testing and does not represent a guarantee of the properties mentioned in this document.

### **CAUTION**

Read the product's Safety Data Sheet (SDS) before use.

# FOR INDUSTRIAL USE ONLY

