



**MIXING TECHNOLOGIES**



JM Engineering offers a range of standard protective coating systems on all motors, gearboxes and exposed carbon steel components. Along with our own standards, we can comply with supplied coating specifications.

Coating System	Coating Procedure	
	Pedestals and Baseplates	Motors and Gearboxes
<b>JM1</b> Standard Enamel	<b>Preparation</b>	
	<i>Blast</i> AS1627, Class 2.5	<i>Clean</i> Solvent wash manufacturer's coating
	<i>Profile</i> 50~60 µm	<i>Prepare</i> Lightly abrade surface
	<b>Paint System</b>	
<i>1st Coat</i> Enamel primer, 50 µm	<i>1st Coat</i> UMP tie coat, 50 µm	
<i>2nd Coat</i> Enamel top coat, 50 µm	<i>2nd Coat</i> Enamel top coat, 50 µm	
<i>3rd Coat</i> Enamel top coat, 50 µm	<i>3rd Coat</i> Enamel top coat, 50 µm	
<b>JM4</b> Standard Epoxy	<b>Preparation</b>	
	<i>Blast</i> AS1627, Class 2.5	<i>Clean</i> Solvent wash manufacturer's coating
	<i>Profile</i> 50~60 µm	<i>Prepare</i> Lightly abrade surface
	<b>Paint System</b>	
<i>1st Coat</i> Epoxy phosphate primer, 75 µm	<i>1st Coat</i> UMP tie coat, 50 µm	
<i>2nd Coat</i> Recoatable polyurethane, 50 µm	<i>2nd Coat</i> Epoxy phosphate primer, 75 µm	
<i>*(3rd Coat)</i> Recoatable polyurethane, 50 µm	<i>3rd Coat</i> Recoatable polyurethane, 50 µm	
		<i>*(4th Coat)</i> Recoatable polyurethane, 50 µm
<b>JM9</b> Premium Epoxy	<b>Preparation</b>	
	<i>Blast</i> AS1627, Class 2.5	<i>Clean</i> Solvent wash manufacturer's coating
	<i>Profile</i> 50~60 µm	<i>Prepare</i> Lightly abrade surface
	<b>Paint System</b>	
<i>1st Coat</i> Epoxy phosphate primer, 75 µm	<i>1st Coat</i> UMP tie coat, 50 µm	
<i>2nd Coat</i> Recoatable polyurethane, 50 µm	<i>2nd Coat</i> Epoxy phosphate primer, 75 µm	
<i>3rd Coat</i> Recoatable polyurethane, 50 µm	<i>3rd Coat</i> Surface tolerant high build epoxy, 125 µm	
		<i>4th Coat</i> Recoatable polyurethane, 50 µm

- JM Engineering standard top coat colour is AS2700 Y14 Golden Yellow. Other colours available on request.
- Nominated thicknesses are minimum values.
- No drips or runs.
- \* Additional coat only required on some colours to achieve full opacity.

JM Engineering shafts and impellers for service in extreme conditions may be rubber lined for environmental protection. This may be done to reduce corrosion of the wet end or to prevent erosion due to highly abrasive products, such as ore slurries.

Coating System	Rubber Lining	
<b>JM-R</b> Standard Rubbing Lining	<b>Preparation</b>	
	Grind	All sharp edges to 6mm radius
	Blast	AS1627, Class 2.5
	Profile	50~60 µm
	<b>Rubbing Lining</b>	
	1st Coat	Prime immediately after blasing
2nd Coat	Intermediate rubber cement	
3rd Coat	Rubber glue	
4th Coat	6mm thick Bromo-butyl rubber, SH40, to BS6374.5, considering fluid flow direction	
Cure	Autoclave or air cure, according to manufacturer's specifications	



**Left:** Rubbing lining gives a thick, tough, abrasive and chemical resistant surface to shafts and impellers.

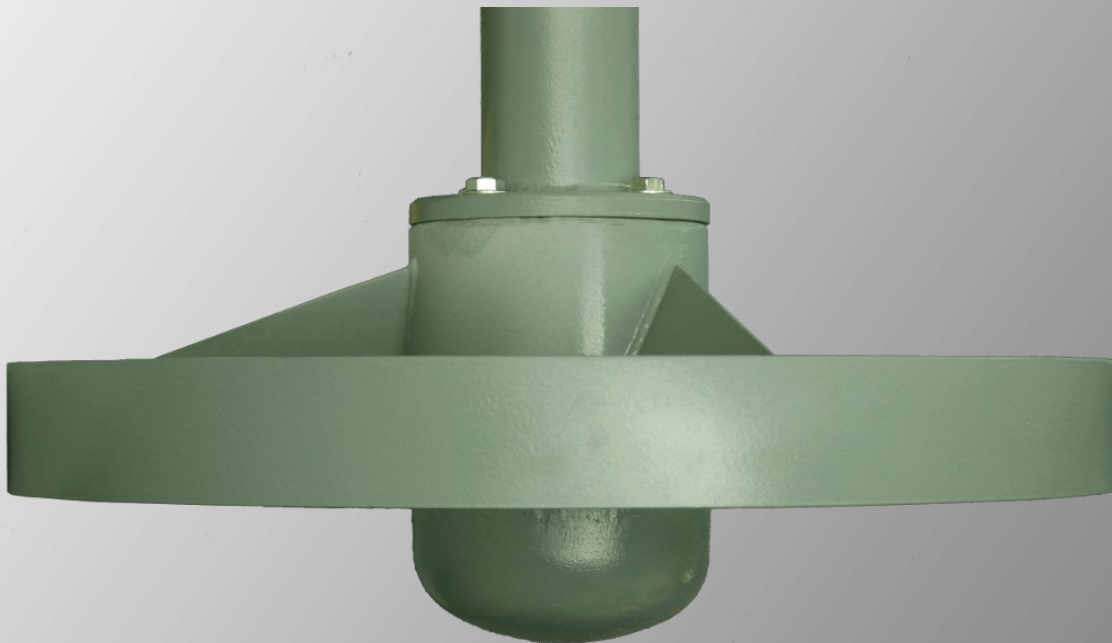
**Below:** Ore slurry shafts and impellers are rubber lined to prolong service life in tough mining applications.



JM Engineering shafts and impellers for service in extreme conditions may be polymer coated for surface protection in highly corrosive environments. Polymer coating utilises an electrostatic coating process to bond ECTFE (Ethylene ChloroTriFluoroEthylene) to the metal surface.

This leaves the component with:

- Excellent chemical resistance: including strong acids, chlorine and aqueous caustics
- Good permeation resistance: < 0.1% water absorption
- Good mechanical properties: 32 MPa strength and 5% elongation at yield
- Good thermal properties: certified for service up to 150 °C
- Smooth surface finish: reduced bacterial growth compared to stainless steel and PVDF
- Good electrical resistance: dielectric strength of 80 kV/mm in 25µm thickness



**Above:** Polymer coating on an impeller for use in a highly corrosive environment.

Please complete as much of the form below as possible and return the completed form via email (sales@jmengineering.com.au) or fax (+612 9757 4138). A JM Engineering representative will contact you to discuss your process requirements.

**Contact Details**

Name \_\_\_\_\_

Company \_\_\_\_\_

Email \_\_\_\_\_

Phone: \_\_\_\_\_

City \_\_\_\_\_

Country: \_\_\_\_\_

**Fluid(s)**

Viscosity \_\_\_\_\_

Specific Gravity \_\_\_\_\_

Temperature \_\_\_\_\_

Flow Rate \_\_\_\_\_

**Process**

Agitation    Heat Transfer    Flocculation    Solid Suspension    Homogenisation    Blending

Other \_\_\_\_\_

**Existing Vessel**

Shape \_\_\_\_\_

Dimensions: \_\_\_\_\_

Fluid Depth    Min: \_\_\_\_\_

Max: \_\_\_\_\_

**Existing Mixer**

Shaft Diameter \_\_\_\_\_

Shaft Length: \_\_\_\_\_

Power \_\_\_\_\_

**Other Information**

---

---

---

---

---

---

---

---

---

---