

DUREKEM[®] MPP

Chemical Resistant Multi-Purpose Phenolic Epoxy

PC A20

- FEATURES**
- EXCELLENT CHEMICAL RESISTANCE
 - EXCELLENT LINING FOR SOLVENTS
 - CAN BE USED DIRECT TO METAL
 - SUITABLE FOR HOT WATER IMMERSION
 - HIGH SOLIDS

USES DUREKEM[®] MPP is a two component, chemical resistant phenolic epoxy designed to provide corrosion protection to the internals of steel storage tanks.

Suitable for the storage of a wide range of materials including aliphatic and aromatic hydrocarbons.

SPECIFICATIONS AS/NZS 4020:2018 - compliant for use in potable water when used in conjunction with a certified coating system. Refer to a Dulux Protective Coatings Consultant for details of the system.

RESISTANCE GUIDE

WEATHERABILITY	Will yellow with time and chalk up on exterior exposure. Neither yellowing nor chalking detracts from the protective properties of the coating. If required, use a weatherable topcoat for appearance.	SOLVENTS	Excellent lining for aliphatic and aromatic hydrocarbons. Resists splash and spillage of most solvents.
HEAT RESISTANCE	Up to 120°C dry heat	WATER	Excellent resistance to fresh, salt or de-ionised water. Suitable for hot water immersion.
SALTS	Excellent resistance to splash and spillage of most salt solutions	ALKALIS	Excellent resistance to most common alkalis
ACIDS	Good resistance to splash and spillage of most common acids	ABRASION	Good when fully cured

TYPICAL PROPERTIES AND APPLICATION DATA

CLASSIFICATION	Amine cured phenolic epoxy	APPLICATION CONDITIONS			
FINISH	Semi-Gloss		Min	Max	
COLOUR	Factory Packaged White and Green Grey	Air Temp.	10°C	40°C	
COMPONENTS	Two	Substrate Temp.	10°C	40°C	
VOLUME SOLIDS	80% (White)	Relative Humidity		85%	
VOC LEVEL	<166 g/L (White)	COATING THICKNESS (MICRONS)			
FLASH POINT	>23°C		Min	Max	Recommended
POT LIFE	1.5 Hours (4 litre kit, 25°C)	Wet film per coat (µm)	230	455	375
SPRAY LIFE	1.5 Hours (15 litre kit, 25°C)	Dry film per coat (µm)	180 [^]	360	300
MIXING RATIO V/V	Part A : 4 Part B : 1	SUITABLE SUBSTRATES	Abrasive blast cleaned steel		
THINNER (SPRAY)	920-08925 Dulux [®] Epoxy Thinner	PRIMERS	Specified Dulux [®] Protective Coatings primer when used in atmospheric applications		
THINNER (IMMERSION)	965-63020 Dulux [®] CR Reducer	TOPCOAT	Specified Dulux [®] Protective Coatings topcoats		
PRODUCT CODE	745-00026 White 745-H0097 Green Grey (MTO) 976-H0098 Hardener	APPLICATION METHODS	Conventional, HVLP, or airless spray		

[^]To achieve a lower WFT, ie 150µm, Air-spray application might be required

DRYING CHARACTERISTICS AT 300 µm DRY FILM THICKNESS*

Temperature	Humidity	Touch	Handle	Full Cure	OVERCOAT	
					Min	Max ¹
10° C	50%	13.5 Hours	48 Hours	7 Days	48 Hours	4 Weeks
15° C	50%	9 Hours	32 Hours	7 Days	32 Hours	4 Weeks
25° C	50%	4.5 Hours	16 Hours	7 Days	16 Hours	4 Weeks

* These figures are given as a guide only, as ventilation, film thickness, humidity, thinning and other factors will influence the rate of drying. Figures quoted are for non-immersion conditions. When used for immersion conditions the **maximum overcoat interval is 3 days** at 25°C. The coating **MUST** be fully cured and solvent free prior to being placed under immersion conditions.

¹ If the maximum overcoat interval is exceeded then the surface **MUST** be abraded to ensure maximum intercoat adhesion.

SPREADING RATE 2.7 square metres per litre equals 300 µm dry film thickness

ASSUMING NO LOSSES

NOTE: Practical spreading rates will vary depending on such factors as application method, ambient conditions and surface porosity and roughness.

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TYPICAL SYSTEMS

This is a guide only and not to be used as a specification. Your specific project needs must be discussed with a Dulux Protective Coatings Consultant.

SURFACE	ENVIRONMENT	PREPARATION GUIDE	SYSTEM	DFT (µm)
STEEL	Internal tank lining	Abrasive blast AS1627.4 Class 3	1 st Coat Durekem® MPP 2 nd Coat Durekem® MPP	250 µm 250 µm

NOTE: If application is by brush or roller, additional coats will be necessary to achieve the minimum DFT

SURFACE PREPARATION	<p>Steel: Round off all rough welds, sharp edges and remove weld spatter. Degrease in accordance with AS1627.1. Abrasive blast clean to a minimum of AS1627.4 Class 2.5.</p> <p>Immersed steel: Abrasive blast clean to AS1627.4 Class 3. Remove all dust by brushing or vacuum cleaning.</p>																											
APPLICATION	<p>Mix each can thoroughly using a power mixer until the contents are uniform. Mix the contents of both packs together thoroughly with a power mixer. Box all containers before use to ensure colour consistency. Remix thoroughly before application.</p>																											
APPLICATION EQUIPMENT	<p>Airless Spray: Graco K60FH2 or equivalent Thinning is not normally required but up to 50 ml/litre or 5% of Dulux® CR Reducer (965-63020) or Dulux® Epoxy Thinner (920-08925) may be added to aid application. Apply in multiple wet coats overlapping each pass 50%.</p> <table border="1"> <thead> <tr> <th>Tip Orifice</th> <th>Atomising Pressure</th> <th>Mat'l Hose ID</th> <th>Pump Manifold Filter</th> </tr> </thead> <tbody> <tr> <td>0.017" – 0.019" (430 - 480 microns)</td> <td>2,500 – 3,500 psi (170 – 240 bar)</td> <td>1/4" or 3/8" (6.4 or 9.5 mm)</td> <td>60 mesh (250 microns)</td> </tr> </tbody> </table> <p>NOTE: A 2 metre x 1/4" (6.35mm) whip hose is allowed at the end of the material hose for greater ease of application.</p> <p>Air Spray: Graco Triton 308 or equivalent. Thin 100-150ml/litre or 10-15% of Dulux® CR Reducer (965-63020) or Epoxy Thinner (920-08925) to aid in application. Apply in multiple wet coats overlapping each pass 50%.</p> <table border="1"> <thead> <tr> <th>Gun</th> <th>Fluid Tip</th> <th>Air Cap</th> <th>Air Hose ID</th> <th>Mat'l Hose ID</th> <th>Atomising Pressure</th> <th>Pot Pressure</th> </tr> </thead> <tbody> <tr> <td>Graco Air Pro or Equivalent</td> <td>2.2 mm (0.086)</td> <td>Graco 192318</td> <td>5/16" or 3/8" (7.9 or 9.5 mm)</td> <td>3/8" or 1/2" (9.5 or 12.7 mm)</td> <td>55 to 60 PSI (3.79 – 4.14 Bar)</td> <td>10 to 15 PSI (0.7 – 1.03 Bar)</td> </tr> </tbody> </table> <p>NOTE: Low temperatures and/or long hose lengths require higher material pressure.</p> <p>Roller: Thin 10% to 15% Dulux® Epoxy Thinner (920-08925) to aid application. Recommended for small touch up areas only. Use 12 mm to 14 mm synthetic woven nap covers. Note: Two or more coats may be required to obtain recommended film thicknesses.</p> <p>Brush: Thin 10% to 15% Dulux® Epoxy Thinner (920-08925) to aid application. Recommended for small touch up areas only. Use high quality natural or synthetic bristle brushes. Note: Two or more coats may be required to obtain recommended film thicknesses.</p>						Tip Orifice	Atomising Pressure	Mat'l Hose ID	Pump Manifold Filter	0.017" – 0.019" (430 - 480 microns)	2,500 – 3,500 psi (170 – 240 bar)	1/4" or 3/8" (6.4 or 9.5 mm)	60 mesh (250 microns)	Gun	Fluid Tip	Air Cap	Air Hose ID	Mat'l Hose ID	Atomising Pressure	Pot Pressure	Graco Air Pro or Equivalent	2.2 mm (0.086)	Graco 192318	5/16" or 3/8" (7.9 or 9.5 mm)	3/8" or 1/2" (9.5 or 12.7 mm)	55 to 60 PSI (3.79 – 4.14 Bar)	10 to 15 PSI (0.7 – 1.03 Bar)
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PRECAUTIONS	<p>This is an industrial product designed for use by experienced Protective Coating applicators. Where conditions may require variation from the recommendations on this Product Data Sheet contact your nearest Dulux® Protective Coatings Consultant for advice prior to painting. Do not apply in conditions outside the parameters stated in this document without the written consent of Dulux® Protective Coatings Australia.</p> <p>Freshly mixed material must not be added to previously mixed material.</p> <p>The rate of cure is dependent upon temperature. Do not apply at temperatures below 10°C when using Standard Hardener. Do not apply at relative humidity above 85% or when the surface is less than 3°C above the dewpoint. The surface to be coated must be totally free of moisture and contaminants. When applying this product to broad surfaces such as floors use only one application method to avoid colour variation or streaking.</p> <p>When used for immersion conditions the maximum overcoat interval is 3 days at 25°C. The coating MUST be fully cured and solvent free prior to being placed under immersion conditions. For best results in water immersion conditions replace Dulux® Epoxy Thinner (920-08925) with Dulux® CR Reducer (965-63020). Do not use this product for this application without consulting a Dulux® Protective Coatings Consultant.</p>																											
CLEAN UP	Clean all equipment with Dulux® Epoxy Thinner (920-08925) immediately after use.																											
OVERCOATING	For atmospheric service: For atmospheric service: Assess the condition of aged coatings and the viability of an overcoat system in accordance with the latest versions of SSPC TU No.3, ASTM D 5064, and ASTM D 5065. Consult your local Dulux® Protective Coatings Consultant for specific surface preparation and coating system recommendations.																											
SAFETY PRECAUTIONS	Read Data Sheet, SAFETY DATA SHEET and any precautions on container labels. SAFETY DATA SHEET is available from Customer Service (13 23 77) or www.duluxprotectivecoatings.com.au																											
STORAGE	Store as required for a flammable liquid Class 3 in a bonded area under cover. Store in well-ventilated area away from sources of heat or ignition. Keep containers closed at all times.																											
HANDLING	As with any chemical, ingestion, inhalation and prolonged or repeated skin contact should be avoided by good occupational work practice. Eye protection approved to AS1337 should be worn where there is a risk of splashes entering the eyes. Always wash hands before smoking, eating, drinking or using the toilet.																											
ENVIRONMENT	Use with good ventilation and avoid inhalation of spray mists and fumes.																											
PPE	If risk of inhalation of spray mists exists, wear combined organic vapour/particulate respirator. When spraying, users must comply with their respective State Spray Painting Regulations.																											
FLAMMABILITY	This product is flammable. All sources of ignition must be eliminated in, or near the working area. DO NOT SMOKE. Fight fire with foam, CO ₂ or dry chemical powder. On burning will emit toxic fumes.																											
WELDING	Avoid inhalation of fumes if welding surfaces coated with this paint. Grind off coating before welding.																											

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CHEMICAL RESISTANCE

The resistance table below is a guide to the performance of fully cured Durekem® MPP when applied according to specifications.

CHEMICALS	EXPOSURE				
	ACIDS	SPLASH & SPILLAGE	SECONDARY CONTAINMENT	TEMPORARY IMMERSION	IMMERSION
Acetic acid 30%	✗	✗	✗	✗	✗
Hydrochloric acid 30%	✓	✗	✗	✗	✗
Sulphuric acid 30%	✓	✗	✗	✗	✗
Sulphuric acid 85%	✓	✗	✗	✗	✗
Sulphuric acid 98%	✗	✗	✗	✗	✗
Nitric acid 30%	✗	✗	✗	✗	✗
Phosphoric acid 85%	✓	✗	✗	✗	✗

ALKALI & SALTS	SPLASH & SPILLAGE	SECONDARY CONTAINMENT	TEMPORARY IMMERSION	IMMERSION
Ammonia 10%	✓	✓	✗	✗
Ammonia 30%	✓	✓	✗	✗
Sodium hydroxide 10%	✓	✓	-	✗
Sodium hydroxide 40%	✓	✓	✓	-
Sodium hypochlorite 10%	✓	✓	✗	✗
Sodium hypochlorite 30%	✓	✓	✗	✗

SOLVENTS	SPLASH & SPILLAGE	SECONDARY CONTAINMENT	TEMPORARY IMMERSION	IMMERSION
Ethanol	✓	✓	✓	-
Ethylene glycol	✓	✓	✓	-
Methyl ethyl ketone (MEK)	✓	✓	✓	-
50:50 Toluene / Xylene	✓	✓	✓	✓

REFINED PETROLEUM	SPLASH & SPILLAGE	SECONDARY CONTAINMENT	TEMPORARY IMMERSION	IMMERSION
F-34	✓	✓	✗	✗
F-44	✓	✓	✗	✗
Jet-A1	✓	✓	✗	✗
Unleaded	✓	✓	✗	✗

OTHER	SPLASH & SPILLAGE	SECONDARY CONTAINMENT	TEMPORARY IMMERSION	IMMERSION
Deionized water	✓	✓	✓	✓
Hot water	✓	✓	✓	✓
Molasses	✓	✓	✓	-
Skydrol	✓	✓	✓	-

Splash and spillage: up to 48-hour period with slight or no surface effect.

Secondary containment: continuous direct contact with chemical up to a 1 week period with slight or no surface effect.

Temporary immersion: continuous direct contact with chemical up to 2 months with slight or no surface effect.

Immersion: Suitable for continuous direct contact with chemical.

✓ suitable

✗ not suitable

- Contact Dulux® Protective Coatings Consultant

COMPANY INFORMATION		PACKAGING, TRANSPORT AND STORAGE	
Dulux Protective Coatings a division of		PACKAGING	Available in 15 litre packs
DuluxGroup (Australia) Pty Ltd 1956 Dandenong Road, Clayton 3168 A.B.N. 67 000 049 427	DuluxGroup (New Zealand) Pty Ltd 150 Hutt Park Road, Lower Hutt, NZ A.B.N. 55 133 404 118	TRANSPORTATION WEIGHT	1.81 kg/litre (Average of components)
		DANGEROUS GOODS	Part A: Class 3 UN 1263 Part B: Class 8 UN 1760

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