

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 and chemical-resistant lining protection for concrete secondary containment structures.

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

SPECIFICATIONS

RESISTANCE GUIDE

WEATHERABILITY	Will yellow and chalk on exterior exposure. While this does not typically affect the coating's protective properties, prolonged weathering may impact performance. For improved weatherability and durability, a suitable UV-stable topcoat is recommended	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
			Substrate Temp.	10°C	40°C
			Relative Humidity		85%
COMPONENTS	Two		COATING THICKNESS (MICRONS)		
VOLUME SOLIDS	80% (White)			Min [^]	Max
VOC LEVEL	<166 g/L (White)				Recommended
FLASH POINT	>23°C		Wet film per coat (µm)	225	455
POT LIFE	1.5 Hours (4 litre kit, 25°C)		Dry film per coat (µm)	180	360
SPRAY LIFE	1.5 Hours (15 litre kit, 25°C)				375
MIXING RATIO V/V	Part A : 4	Part B : 1			300
THINNER	920-08925	Dulux® Epoxy Thinner	SUITABLE SUBSTRATES	Direct to blast cleaned steel, suitably primed steel and suitably prepared and resurfaced concrete.	
(SPRAY)	965-63020	Dulux® CR Reducer	PRIMERS	Not required or a specified Dulux® Protective Coatings primer.	
(IMMERSION)	965-63020	Dulux® CR Reducer	TOPCOAT	Specified Dulux® Protective Coatings topcoats including Weathermax® HBR.	
PRODUCT CODE	745-00026	White	APPLICATION METHODS	Airless spray	
	745-H0097	Green Grey (MTO)			
	976-H0098	Hardener			

[^]To achieve minimum recommended film build consistently, 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 ASSUMING NO LOSSES

2.7 square metres per litre equals 300 µm dry film thickness

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
			Stripe Coat	Durekem MPP
			2 nd Coat	Durekem® MPP
CONCRETE	Secondary containment	Remove release agents and other surface contaminants/ Dry abrasive blast cleaning to SSPCSP 13/NACE No. 6. to a CSP 4/5 per ICRI Guideline No. 310.2R. Fill voids, bugholes, honeycombs, etc using an appropriate Fosroc filler/surfacers such as Nitomortar AP.	1 st Coat	Durekem® MPP
			2 nd Coat	Durekem MPP
			2 nd Coat	Weathermax® HBR

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

SURFACE PREPARATION	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. Immersed steel: Abrasive blast clean to AS1627.4 Class 3. Remove all dust by brushing or vacuum cleaning. Concrete: Concrete must be at least 28 days old before coating. Remove all laitance, form release agents, curing compounds, oil, grease and other surface contaminants. Prepare concrete surfaces per NACE No. 6/SSPC-SP13 Joint Surface Preparation Standards and ICRI Technical Guidelines. Abrasive blast, shot-blast, water jet or mechanically abrade concrete surfaces to remove laitance, curing compounds, hardeners, sealers and other contaminants and to provide a minimum of CSP 4/5 as per ICRI Guideline No. 310.2R. Cracks, voids and other surface imperfections should be filled with a recommended filler or surfacer such as Fosroc Nitomortar AP or Nitomortar 903. Fill all cracks, bug holes and/or voids using Dulux® Luxepoxy® Filler as appropriate. <i>*Allow new concrete to cure a minimum of 28 days at 24°C. To minimise the risk of moisture interference, Dulux recommends the following two tests be performed before coating – ASTM F2659 – 10 “Standard Guide for Preliminary Evaluation of Comparative Moisture Condition of Concrete, Gypsum Cement and Other Floor Slabs and Screeds Using a Non-Destructive Electronic Moisture Meter” (moisture content not to exceed 6%) and ASTM D 4263 “Standard Test Method for Indicating Moisture in Concrete by the Plastic Sheet Method” (no visible moisture present). If there is any concern about moisture problems with the concrete slab, or for projects greater than 500m2, at least one of the following more accurate quantitative test methods should be used - ASTM F 1869 “Standard Test Method for Measuring Moisture Vapor Emission Rate of Concrete Subfloor Using Anhydrous Calcium Chloride” (moisture vapour transmission should not exceed 1.4 kilograms (3 pounds) per 93 square metres (1,000 square feet) in 24 hours), ASTM F 2170 “Standard Test Method for Determining Relative Humidity in Concrete using in situ Probes” (as referred to in AS 1884-2012, relative humidity should be less than 75%) Note: The testing listed above cannot guarantee avoidance of future moisture related problems, particularly with existing concrete slabs. This is especially true if an under-slab moisture vapour barrier cannot be confirmed or concrete contamination from oils, chemical spills, unreacted silicates, chlorides or Alkali-Silica Reaction (ASR) is suspected.</i>																						
APPLICATION APPLICATION EQUIPMENT	Mix each side thoroughly using a power mixer until the contents are uniform. Mix the contents of both packs together thoroughly with a power mixer.. Remix thoroughly before application. 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%. <table><tr><td>Tip Orifice</td><td>Atomising Pressure</td><td>Mat'l Hose ID</td><td>Pump Manifold Filter</td></tr><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></table> NOTE: A 2 metre x ¼” (6.35mm) whip hose is allowed at the end of the material hose for greater ease of application. 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%. <table><tr><td>Gun</td><td>Fluid Tip</td><td>Air Cap</td><td>Air Hose ID</td><td>Mat'l Hose ID</td><td>Atomising Pressure</td><td>Pot Pressure</td></tr><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></table> NOTE: Low temperatures and/or long hose lengths require higher material pressure. 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. 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.	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	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.																						

DUREKEM® MPP

PRECAUTIONS	Freshly mixed material must not be added to previously mixed material. The rate of cure is dependent upon temperature. Do not apply at temperatures below 10°C. 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. 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.
CLEAN UP	Clean all equipment with Dulux® Epoxy Thinner (920-08925) immediately after use.
OVERCOATING	Consult Dulux® Protective Coatings Technical Service.
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 a 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 the risk of inhalation of spray mists exists, wear a 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 are coated with this paint. Grind off the coating before welding.

CHEMICAL RESISTANCE

The resistance table below is a guide to the performance of fully cured Durekem® MPP with a DFT of 279-330µm.

DUREKEM® MPP Intended Use (Maximum Cargo Temperature 38°C Unless Otherwise Stated)					
CHEMICAL	OCCASIONAL CONTACT	FREQUENT CONTACT	SECONDARY CONTAINMENT	CARGO IMMERSION	IMMERSION SERVICE
Acetic Acid 10%	NR	NR	NR	NR	NR
Ammonia 10%	R	R	R	R	NR
Ammonia 21%	R	R	R	R	NR
Ammonium Nitrate 30%	R	R	R	R	R
Butyl Acetate	R	R	R	R	R
Citric Acid 50%	R	R	R	NR	NR
DI Water	R, 60°C	R, 60°C	R, 60°C	NR	NR
Diesel	R, 50°C	R, 50°C	R, 50°C	R, 50°C	R, 50°C
Ethanol 200 Proof	R	R	R	NR	NR
Ethylene Glycol	R	R	R	R	NR
Glycerin	R	R	R	R	R
Hydrochloric Acid 10%	R	R	R	NR	NR
Kerosene	R, 50°C	R, 50°C	R, 50°C	R, 50°C	R, 50°C
Lactic Acid 5%	R	R	R	NR	NR
MEK	NR	NR	NR	NR	NR
MIBK	R	R	R	R	R
Molasses	R	R	R	R	R
Nitric Acid 10%	NR	NR	NR	NR	NR
Phosphoric Acid 5%	NR	NR	NR	NR	NR
Skydrol 500B	R	R	R	R	PC
Skydrol LD-4	R	R	R	R	NR
Sodium Hydroxide 20%	R	R	R	PC	NR
Sodium Hydroxide 5%	R	R	R	R	NR
Sodium Hydroxide 50%	R	R	R	R	R
Sodium Hypochlorite 12%	R	R	R	NR	NR
Sodium Hypochlorite 5%	R	R	R	R	NR
Sulfuric Acid 10%	NR	NR	NR	NR	NR
Sulfuric Acid 30%	R	R	PC	NR	NR
Sulfuric Acid 50%	R	R	R	NR	NR
Unleaded Petrol	R, 50°C	R, 50°C	R, 50°C	R, 50°C	R, 50°C
Xylene	R	R	R	R	R

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DEFINITIONS:

Immersion Service (Most Severe) Cargo Immersion	Suitable for continuous contact with chemical exposure up to specified temperature.
Secondary containment	Suitable for continuous contact with chemical exposure up to specified temperature. The coating will show no effect except slight softening or colour change after 2 months or less continuous immersion. It may also be used in transport and hauling situations.
Frequent Contact	Suitable for frequent splash or up to 72 hours exposure to concentrated vapours. The coating will show no effects except slight softening or colour change after eight hours of continuous immersion in the liquid chemical or 72 hours of exposure to the vapour.
Occasional Contact (Least Severe)	Suitable for occasional splash and spillage or occasional exposure to concentrated vapours. The coating shows no effects, except slight softening or colour changes, following short exposure to splash or spillage which evaporates, is hosed off, or dried overnight, or 24 hours exposure to vapour.
R	Recommended
NR	Not recommended
PC	Contact Protective Coatings

COMPANY INFORMATION

Dulux Protective Coatings is a division of:

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
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PACKAGING, TRANSPORT AND STORAGE

PACKAGING	Available in 15 litre packs
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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