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
FINISH	Semi-Gloss
COLOUR	Factory Packaged White and Green Grey
COMPONENTS	Two
VOLUME SOLIDS	80% (White)
VOC LEVEL	<166 g/L (White)
FLASH POINT	>23°C
POT LIFE	1.5 Hours (4 litre kit, 25°C)
SPRAY LIFE	1.5 Hours (15 litre kit, 25°C)
MIXING RATIO V/V	Part A : 4 Part B : 1
THINNER	920-08925 Dulux® Epoxy Thinner
(SPRAY)	965-63020 Dulux® CR Reducer
(IMMERSION)	965-63020 Dulux® CR Reducer
PRODUCT CODE	745-00026 White 745-H0097 Green Grey (MTO) 976-H0098 Hardener

APPLICATION CONDITIONS

	Min	Max
Air Temp.	10°C	40°C
Substrate Temp.	10°C	40°C
Relative Humidity		85%

COATING THICKNESS (MICRONS)

	Min^	Max	Recommended
Wet film per coat (µm)	225	455	375
Dry film per coat (µm)	180	360	300

SUITABLE SUBSTRATES	Abrasive blast cleaned steel
PRIMERS	Specified Dulux® Protective Coatings primer when used in atmospheric applications
TOPCOAT	Specified Dulux® Protective Coatings topcoats
APPLICATION METHODS	Air-assisted or airless spray

^To achieve minimum recommended film build consistently, air-spray application might be required.

DRYING CHARACTERISTICS AT 300 µm DRY FILM THICKNESS*

					OVERCOAT	
Temperature	**Humidity**	**Touch**	**Handle**	**Full Cure**	**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 place 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	1st Coat 2nd Coat	Durekem® MPP Durekem® MPP	250 µm 250 µm

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.

APPLICATION

Mix each can thoroughly using a power mixer until the contents are uniform. Mix the contents of both packs thoroughly with a power mixer. Box all containers before use to ensure colour consistency. Remix thoroughly before application.

APPLICATION EQUIPMENT

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%.

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)

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%.

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)

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.

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.

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 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.

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

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 bunded 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.

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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

DEFINITIONS:

Immersion Service (Most Severe)	Suitable for continuous contact with chemical exposure up to specified temperature.
Cargo Immersion	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.
Secondary containment	Suitable for continuous contact with chemical for up to 72 hours. EPA regulations require removal within 48 hours or in as timely a manner as possible. Softening or discolouration may occur during the exposure.
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
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DuluxGroup (New Zealand) Pty Ltd
150 Hutt Park Road, Lower Hutt, NZ
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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