

the paint the professionals use

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 minimise the effect of your project on the environment – see the Resene website

Substrate characteristics

Metallisation is the process whereby molten or near molten metals, usually zinc or aluminium are sprayed onto a prepared steel substrate. All grades of steel may be metallised as the process does not affect metallurgical properties. Steel substrates require grit blasting to a 'white metal' finish with a minimum anchor profile. Metal spray processes can apply thick metal coatings that can provide corrosion protection in excess of 25 years (see AS/NZ 2312:2002).

Painting of a metal sprayed coating is recommended when:

- The coated steel will be subject to chemical attack.
- Extended service life is required.
- A decorative finish is required.

The following paint systems are designed for application to either zinc or aluminium sprayed metal coatings to provide a decorative finish along with long term corrosion protection.

Surface preparation

The paint system should be applied as soon as physically possible after completion of metallisation. The metal spray coating should be free of all contaminants, especially fingermarks. Thoroughly sand the zinc metal spray to remove any spikes and excessive surface roughness that may protrude through the subsequent paint system. Seal prepared metal spray with Resene Armourcote 220 (see [Data Sheet RA34](#)) thinned 15-30% with recommended thinner or alternatively apply Resene ArmourBond (see [Data Sheet RA408](#)). Application of Resene ArmourBond must be carried out in a manner that does not produce a noticeable film build on top of the metal spray.

System life

Consult Resene for advice on selection of coating systems for metal spray applied to achieve 20+ years corrosion protection. These long term corrosion protection systems must be designed to suit the specific macro and micro environments.

Exterior new metal spray coatings

Metal arc and zinc spray

For specific systems for severe exterior environments contact Resene

24e 2 Exterior rainwashed areas~long term protection: urethane finish (ULT)

Generic specification				Resene Spec No.	Resene One-Line Specification							
Substrate	Environment	Paint system	Gloss level		System life	Surface prep	Coat	Product	DFT (min)	Application	Features	
Metal spray coating	Exterior rain-washed	Epoxy primer	Gloss	24e 2.1 ^{ULT}	LT	*see above	1st	Armourcote 220	RA34	75	S	Inhibitive
		2nd					Uracryl 403	RA56	50	S/B/R	Brushable and	
		3rd					Uracryl 403	RA56	50	S/B/R	gloss retention	
		4th					Uracryl 403 UVS Clear (optional)	RA56	50	S/B/R	U.V. stabilised	
Metal spray coating	Exterior rain-washed	Epoxy primer	Semi-gloss	24e 2.2 ^{ULT}	LT	*see above	1st	Armourcote 220	RA34	75	S	Inhibitive
		2nd					Uracryl 402	RA55	50	S/B/R	Brushable and	
		3rd					Uracryl 402	RA55	50	S/B/R	gloss retention	
		4th					Uracryl 402 UVS Clear (optional)	RA55	50	S/B/R	U.V. stabilised	
Metal spray coating	Exterior rain-washed	Epoxy primer	Low sheen	24e 2.4 ^{ULT}	LT	*see above	1st	Armourcote 220	RA34	75	S	Inhibitive
		2nd					Uracryl 404	RA59	50	S/R	Gloss retention	
		3rd					Uracryl 404	RA59	50	S/R	Gloss retention	
		4th					Uracryl 404 UVS Clear (optional)	RA59	50	S/R	U.V. stabilised	

Note 1: Specified film builds are best achieved by spray application. Brush/roller application will require additional coats to achieve specified DFTs.

Note 2: Use Resene Imperite I.F. 503 (see [Data Sheet RA81](#)) in place of Resene Uracryl 403 (see [Data Sheet RA56](#)) if an isocyanate free gloss topcoat is required (some gloss retention will be sacrificed).

Note 3: Application of a Resene Uracryl 400 Series U.V. stabilised clear is to be specified when long-term colour/gloss retention is required.

Contact Resene for specification details for non rainwashed areas.

Key: B = Brush LT = Long term (10-20 years) R = Roller S = Spray ULT = Urethane finish long term protection

If in doubt about any aspect of your specification please contact Resene.