



Protective & Marine Coatings

MACROPOXY™ P200 EPOXY GLASS FLAKE

FORMERLY KNOWN AS PIPEGARD P200

Revised 01/2018 Issue 10

PRODUCT INFORMATION

PRODUCT DESCRIPTION

High solids 2-pack epoxy whose main pigmentation comprises lead free colouring pigments, micronised glass flake and anticorrosive pigments.

RECOMMENDED USE

Anticorrosive protection of blast cleaned steel. Possesses excellent abrasion resistance and has excellent resistance to immersion in sea water and a range of chemicals. Suitable for use on cathodically protected steel. Normally applied as a single coat system, however may be applied as a multicoat system, in order to comply with the requirements of DNV RP B401 Category 3.

ENDORSEMENTS

Complies with BS5493:1977 - Table 4K Type KP1A
Compliant with test requirements of ISO20340:2009 / NORSOK M501 System 7.
(Exova Certificate No N961361)

RECOMMENDED APPLICATION METHODS

Plural component spray
Brush (for stripe coat and touch up only)

Recommended Cleanser/Thinner: No 9

PRODUCT CHARACTERISTICS

Flash Point: Base : 9°C Additive : 23°C

% Solids by Volume: 90% ± 4% (ASTM-D2697-91)

Colour Availability: Pale yellow.

Pot Life: 3 hrs @ 5°C 1½ hrs @ 15°C 30 minutes @ 35°C

VOC

84* grammes/litre

* Calculated from solids by volume determination.

RECOMMENDED THICKNESS

Dry film thickness	Wet film thickness	Theoretical coverage
350 microns	389 microns	2.5m²/ltr*

* This figure makes no allowance for surface profile, uneven application, overspray or losses in containers and equipment. Film thickness will vary depending on actual use and specification

PRACTICAL APPLICATION RATES - MICRONS PER COAT

	Airless Spray
Dry	350*
Wet	389

* Maximum sag tolerance with overlap typically 1111µm (1000µm dry) by airless spray in a single coat.

AVERAGE DRYING TIMES

	At 15°C	At 23°C	At 35°
To touch:	12 hours	6 hours	4 hours
To recoat:	30 minutes	15 minutes	10 minutes
To handle:	30 hours	16 hours	8 hours

These figures are given as a guide only. Factors such as air movement, humidity and film thickness must also be considered.

RECOMMENDED PRIMERS / TOPCOATS

Macropoxy L574 Blast Primer.

Indefinitely self overcoatable provided the coating has been suitable cleaned. For optimum intercoat adhesion with other epoxy topcoats, overcoating should occur within 14 days. Where a high degree of gloss and colour retention is required, overcoat with Acrolon C137V2 and Acrolon C237 within 7 days at a minimum dft of 50 microns or Acrolon C750V2 overcoat within 4 days. These overcoating times refer to achievement of optimum adhesion at 23°C and will vary with temperature. For overcoating outside the above parameters and with alkyd systems, consult Sherwin-Williams.

PACKAGE

A two component material supplied in separate containers to be mixed prior to use.

Pack Size: 20 litre unit when mixed.

Mixing Ratio: 1 part base to 1 part additive by volume.

Density: 1.65 kg/litre.

Shelf Life: 2 years from date of manufacture or 'Use By' date where specified.



Protective & Marine Coatings

MACROPOXY™ P200 EPOXY GLASS FLAKE

FORMERLY KNOWN AS PIPEGARD P200

Revised 01/2018 Issue 10

PRODUCT INFORMATION

SURFACE PREPARATION

Blast clean to Sa2½ BS EN ISO8501-1:2007 Average surface profile in the range 50-100 microns. Ensure surfaces to be coated are clean, dry and free from all surface contamination. Macropoxy L574 should be specified where there is a requirement for a blast primer. Other blast primers should not be used without reference to Sherwin-Williams.

APPLICATION EQUIPMENT

Plural Component Spray

Operating Temperature	Base - 35°C - 45°C Additive - 35°C - 45°C
Operating Pressure	Base - 286kg/cm ² (4000 psi) Additive - 286kg/cm ² (4000 psi)
Nozzle Size	0.48-0.58mm (19-23 thou)
Fan Angle	50°

The details of plural component spray, tip orifice size, fan angle and pressure are given as a guide. The fan angle given is for work on large flat surfaces. Smaller fan angles should be used where the size of work to be sprayed makes this appropriate. It may be found that slight variation in tip orifice size or pressure will provide optimum atomisation in some circumstances. In general the operating pressure should be the lowest possible consistent with satisfactory atomisation.

Material is to be applied using Plural Component Airless Spray equipment which utilises a minimum 10° King Air motor. Both base and additive need pre-heating to a minimum temperature of 45°C while recirculating through the unit, so that satisfactory spray application properties are obtained. Suitable insulated and heated lines should be used to maintain temperature prior to spraying.

Consult Sherwin-Williams for further details of recommended application equipment.

APPLICATION CONDITIONS AND OVERCOATING

In conditions of high relative humidity, i.e. 80-85% good ventilation conditions are essential. Substrate temperature shall be at least 3°C above the dew point and always above 0°C.

At application temperatures below 10°C, drying and curing times will be significantly extended, and spraying characteristics may be impaired.

Application at ambient air temperatures below 5°C is not recommended.

In order to achieve optimum water and chemical resistance, temperature needs to be maintained above 10°C during curing.

If it is desired to overcoat outside the times stated on the data sheet, please seek advice of Sherwin-Williams.

ADDITIONAL NOTES

Drying times, curing times and pot life should be considered as a guide only.

The curing reaction of epoxies commences immediately the two components are mixed, and since the reaction is dependent on temperature, the curing time and pot life will be approximately halved by a 10°C increase in temperature and doubled by a 10°C decrease in temperature.

Overcoating times are typical and may differ depending on the application process and in agreement with Sherwin-Williams.

Epoxy Coatings - Colour Stability:

Variable colour stability is a feature of epoxy materials which tend to yellow and darken with age whether used on internal or external areas. Therefore any areas touched-up and repaired with the same colour at a later date may be obvious due to this colour change. When epoxy materials are exposed to ultra-violet light a surface chalking effect will develop. This phenomenon results in loss of gloss and a fine powder coating at the surface which may give rise to colour variation depending on the aspect of the steelwork. This effect in no way detracts from the performance of the system.

Should a colour stable finish be required, follow instructions under 'Recommended Topcoats'

The maximum air and substrate temperature for application is 50°C providing conditions allow satisfactory application and film formation. If the air and substrate temperatures exceed 50°C and epoxy coatings are applied under these conditions, paint film defects such as dry spray, bubbling and pinholing etc. can occur within the coating. Numerical values quoted for physical data may vary slightly from batch to batch.

HEALTH AND SAFETY

Consult Product Health and Safety Data Sheet for information on safe storage, handling and application of this product.

WARRANTY

Any person or company using the product without first making further enquiries as to the suitability of the product for the intended purpose does so at their own risk, and Sherwin-Williams can accept no liability for the performance of the product, or for any loss or damage arising out of such use.

The information detailed in this Data Sheet is liable to modification from time to time in the light of experience and of normal product development, and before using, customers are advised to check with Sherwin-Williams, quoting the reference number, to ensure that they possess the latest issue.