



PIEGARD P200

PRODUCT TECHNICAL DATA

FULL DESCRIPTION	: PIPEGARD P200		
MATERIAL TYPE	: High solids 2-pack epoxy whose main pigmentation comprises lead free colouring pigments, micronised glass flake and anticorrosive.		
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		
RECOMMENDED APPLICATION METHODS	: Plural component spray : Brush (for stripe coat and touch up only)		
COLOUR AVAILABILITY	: Pale yellow.		
FLASH POINT	: Base : 9°C		: Additive : 23°C
% SOLIDS BY VOLUME	: 90% ± 4% (ASTM-D2697-91)		
V.O.C.	: 84* grammes/litre : * Calculated from solids by volume determination.		
TYPICAL THICKNESS	Dry film thickness : 350 microns	Wet film Thickness : 389 microns	Theoretical coverage : 2.5 m ² /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 1000µm dry by airless spray in a single coat.		
AVERAGE DRYING TIMES	At 5°C : To touch 12 hours : To recoat 30 minutes : To handle 30 hours	At 15°C : 6 hours : 15 minutes : 16 hours	At 35°C : 4 hours : 10 minutes : 8 hours
	: These figures are given as a guide only. Factors such as air movement, humidity and film thickness must also be considered.		
RECOMMENDED THINNER	: Cleanser/Thinner No. 9		
RESISTANCE TO	: Moisture - Excellent : Acid spillage - Moderate : Alkali spillage - Excellent	: Petroleum solvents - Excellent : Aliphatic solvents - Excellent : Abrasion – Excellent	: Weather - Excellent (Subject to chalking)
RECOMMENDED PRIMERS	: Metagard L574 Blast Primer		
RECOMMENDED TOPCOATS	: 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 Resistex C137V2 and Resistex C237 within 7 days at a minimum dft of 50 microns or Leighs 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..		
POT LIFE	: 3 hours at 5°C	: 1½ hours at 15°C	: 30 minutes at 35°C
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.		
Weight	: 1.65 kg/litre.		
Shelf Life	: 2 years from date of manufacture or 'Use By' date where specified.		

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.

Metagard 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 should 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. For full notes, see data sheet entitled 'Spreading Rates and Overcoating Times'.

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 handling and application of this product.

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.