



# EPIGRIP C400V2

## PRODUCT TECHNICAL DATA

<b>FULL DESCRIPTION</b>	: EPIGRIP C400V2 ZINC PHOSPHATE PRIMER/BUILDCOAT			
<b>MATERIAL TYPE</b>	: A high build 2-pack epoxy zinc phosphate primer/buildcoat			
<b>RECOMMENDED USE</b>	: Anti-corrosive protection of carbon steel surfaces prepared by abrasive blast cleaning. : Can be applied at thicknesses between 75 and 200 microns dry to provide both primer and buildcoat in a single coat. A top coat is only required for decorative purposes. : For use in internal/external conditions, including offshore and petrochemical applications.			
<b>ENDORSEMENTS</b>	: <b>1998 COMPLIANT - 1990 EPA-PG6/23(97) Clause 20(d) - Industrial</b> : <b>1998 COMPLIANT - 1990 EPA-PG6/23(97) Clause 20(e) - Marine</b> : BS467 Part 7 - Surface Spread of Flame : BS6853 Appendix D - Smoke Emissions - for details of substrate/scheme, consult Leigh's Customer Service Department.			
<b>RECOMMENDED APPLICATION METHODS</b>	: Airless Spray ( blast cleaned surfaces only ) : Conventional Spray : Brush : Roller			
<b>COLOUR AVAILABILITY</b>	: Limited range including two MIO shades, Dark Grey (R8050 ) and Light Grey (R8051)			
<b>FLASH POINT</b>	: Base : 24°C		: Additive : 26°C	
<b>% SOLIDS BY VOLUME</b>	: 75 ± 3% (ASTM-D2697-91)			
<b>V.O.C.</b>	: 217* grammes/litre * Calculated from solids by volume determination.			
<b>TYPICAL THICKNESS</b>	<b>Dry film thickness</b>	<b>Wet film thickness</b>	<b>Theoretical coverage</b>	
	: 100 microns	: 133 microns	: 7.5 m <sup>2</sup> /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.			
<b>PRACTICAL APPLICATION RATES- microns per coat</b>	<b>Airless Spray</b>	<b>Conventional Spray</b>	<b>Brush</b>	<b>Roller</b>
	: Dry 100*	: 100	: 75	: 65
	: Wet 133	: 133	: 100	: 87
	* Maximum sag tolerance with overlap typically 300µm dry by airless spray and 125µ dry by brush			
<b>AVERAGE DRYING TIMES</b>	<b>At 15°C</b>	<b>At 23°C</b>	<b>At 35°C</b>	
<b>To touch</b>	: 2 hours	: 1½ hours	: 1 hour	
<b>To recoat</b>	: 6 hours	: 4 hours	: 3 hours	
<b>To handle</b>	: 16 hours	: 8 hours	: 5 hours	
	: These figures are given as a guide only. Factors such as air movement and humidity must also be considered.			
<b>RECOMMENDED THINNER</b>	: Leigh's Cleanser/Thinner No. 2 ( for thinning ) : Leigh's Cleanser/Thinner No. 9 or No. 13 ( for cleaning )			
<b>RESISTANCE TO</b>	: Moisture - Excellent		: Aliphatic solvents - Excellent	
	: Acid spillage - Moderate		: Abrasion - Excellent	
	: Alkali spillage - Excellent		: Weather - Excellent (subject to chalking )	
	: Petroleum solvents - Excellent			
<b>RECOMMENDED TOPCOATS</b>	: Indefinitely overcoatable with epoxy systems provided the surfaces to be coated have been suitably cleaned. Where a high degree of gloss and colour retention is required overcoat with Resistex C137, Resistex C237 within 7 days at a minimum dft of 50 microns or in the case of Resistex K651 or Leigh's C750 overcoat within 4 days. These overcoating times refer to achievement of optimum adhesion of 23°C and will vary with temperature. : For overcoating with alkyd systems consult Leigh's Customer Service Department for advice. : Overcoatable with Envirogard M770 Water Based finish within 1 month @ 15°C. For optimum intercoat adhesion, application of Envirogard M769 Water Based Tiecoat is recommended.			
<b>POT LIFE</b>	: 2½ hours at 15°C		: 1½ hours at 23°C	
			: 1 hour at 35°C	
<b>PACKAGE</b>	: A two component material supplied in separate containers to be mixed prior to use.			
<b>Pack Size</b>	: 20 litre and 5 litre units when mixed.			
<b>Mixing Ratio</b>	: Base to hardener by volume			
<b>Weight</b>	: 1.60 kg/litre (may vary with shade)			
<b>Shelf Life</b>	: Minimum 2 years			

## **SURFACE PREPARATION:**

Blast clean to Sa.2½ BS7079:Part A1:1989 (ISO 8501-1:1988 ). Average surface profile in the range 50-75 microns.

Ensure surfaces to be coated are clean, dry and free from all surface contamination.

Manually prepared surfaces should be prepared to a minimum standard of St3 BS7079:Part A1: 1989 at the time of coating.

Application to such surfaces should be by brush or roller where the mechanical action will aid adhesion.

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## **APPLICATION EQUIPMENT:**

<b>Airless Spray</b>	<b>For d.f.t. applications between 75-125µ</b>	<b>For d.f.t. applications between 125-300µ</b>
Nozzle Size	: 0.33mm (13 thou)	0.38mm (15 thou )
Fan Angle	: 40°	40°
Operating Pressure	: 155kg/cm <sup>2</sup> (2200 psi)	155kg/cm <sup>2</sup> (2200 psi )

The airless spray details given above are intended as a guide only. Details such as fluid hose length and diameter, paint temperature and job shape and size all have an effect on the spray tip and operating pressure chosen. However, the operating pressure should be the lowest possible consistent with satisfactory atomisation. As conditions will vary from job to job, it is the applicators' responsibility to ensure that the equipment in use has been set up to give the best results. If in doubt Leigh's Customer Service Department should be consulted.

### **Conventional Spray**

Nozzle Size	: 1.27mm (50 thou)
Atomising Pressure	: 2.8kg/cm <sup>2</sup> (40 psi)
Fluid Pressure	: 0.4kg/cm <sup>2</sup> (6 psi)

The details of atomising pressure, fluid pressure and nozzle size are given as a guide. It may be found that slight variations of pressure will provide optimum atomisation in some circumstances according to the set up in use. Atomising air pressure depends on the air cap in use and the fluid pressure depends on the length of line and direction of feed i.e. horizontal or vertical.

For application by conventional spray, it may be necessary to thin the paint by the addition of up to 10% Leigh's Cleanser/Thinner No. 2. Where thinning has been carried out the wet film thickness must be adjusted accordingly.

**N.B.** Thinning will affect VOC compliance.

### **Brush and Roller**

The material is suitable for brush and roller application. Application of more than one coat may be necessary to give equivalent dry film thickness to a single spray applied coat.

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## **APPLICATION CONDITIONS AND OVERCOATING:**

This material should preferably be applied at temperatures in excess of 10°C. Relative humidity should not exceed 90% and in these conditions good ventilation is 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 Leigh's Customer Service Department.

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

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## **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.

### **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.

### **Epoxy Coatings - Tropical Use**

Epoxy paints at the time of mixing should not exceed a temperature of 35°C. At this temperature the pot life will be approximately halved. Use of these products outside of the pot life may result in inferior adhesion properties even if the materials appear fit for application. Thinning the mixed product will not alleviate this problem.

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.

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## **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 (Leigh's MTD's, WJ's and W & J Leigh & Co.) can accept no liability for the performance of the product, or for any loss or damage arising out of such use.

This information is detailed in this Data Sheet is liable to modification from time to time in the light of experience and it is recommended that all users and customers are advised to check with W & J Leigh & Co. quoting the reference number, to ensure that they possess the latest issue.



## **SURFACE PREPARATION:**

Firetex M78 is designed for use over a suitably prepared and primed substrate. Ensure surfaces to be coated are clean, dry and free from all surface contamination.

Under certain circumstances it may be possible to apply Firetex M78 directly to steel blast cleaned to a minimum standard of Sa2.5 BS7079:Part A1:1989 (ISO 8501-1:1988), surface profile in the range 50-100 microns. Consult Leigh's Customer Service Department for further details.

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## **APPLICATION EQUIPMENT:**

### **Airless Spray**

Nozzle Size : 0.53-0.76mm (21-30 thou)  
Fan Angle : 40°  
Operating Pressure : 315kg/cm<sup>2</sup> (4500 psi)

The details of airless 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 the 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.

Recommended Equipment: Use a 56:1 or 68:1 Graco King or equivalent. Use 3/8" ID fluid lines where lengths in excess of 10 feet are required. In line gun or pump filters should not normally be used. Maximum length of fluid line should not exceed 60 metres.

For use on narrow web sections the smallest tip recommended is a 0.53 mm (21 thou) with a 60 mesh pump filter.

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## **APPLICATION CONDITIONS AND OVERCOATING:**

The material should preferably be applied at temperatures in excess of 5°C. In conditions of high relative humidity, ie 80-85% good ventilation conditions are essential. Substrate temperature should be at least 3°C above the dew point and always above 0°C.

Application at ambient air temperatures below 5°C is not recommended. The material must be protected from moisture during drying. Moisture ingress prior to drying may lead to surface defects which may be detrimental to the fire protection properties of the product.

No more than 2 coats by airless spray should be applied in any 24 hour period.

**If the maximum recommended thickness per coat is exceeded or is overcoated prematurely, cracking may occur.**

**After drying for at least 24 hours at 15°C, Firetex M78 can be exposed to the weather for up to 12 months without topcoat. Applications below 15°C may result in insufficient drying and reduced weather resistance and performance. If the specific use or storage could lead to ponding water due to rainfall, condensation, or other site/transportation/storage circumstances, then a recommended topcoat must be used to prevent damage to the basecoat.**

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## **ADDITIONAL NOTES:**

### **Dry Film Thickness Measurement:**

All dft specifications quoted are mean values, measurements should be taken for I-Sections to the following recommendations:

Web - 2 per 100 cm length.

Flange - (upper, lower, inside and outside) - 1 per 100 cm length.

High dft's and/or reduced temperatures will extend the drying time and hence the period when dft measurement can be carried out accurately.

For further information refer to Leigh's Customer Service Department.

### **Maintenance**

Limited areas of mechanical damage should be repaired using Firetex M72 Intumescent Mastic. This material should be applied by trowel and if necessary sealed in the normal way with either Firetex M71 or Resistex C137V2. For further details see the Technical Data Sheet for Firetex M72.

Numerical values quoted for physical data may vary slightly from batch to batch.

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## **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 V. & J. Leigh & Co. will accept no liability for the consequences of their use. The company will not be liable for any damage or injury caused by its products.

The information detailed in this data sheet is given for information only and does not constitute an offer of insurance or any other financial product. Customers are advised to check with V. & J. Leigh & Co. quoting the reference number, to be sure that they do not suffer from a product recall.



# FIRETEX C75

## PRODUCT TECHNICAL DATA

<b>FULL DESCRIPTION</b>	: FIRETEX C75 SPECIAL FINISH		
<b>MATERIAL TYPE</b>	: A high performance fast drying acrylic urethane gloss finish for use where long term exterior colour retention characteristics are required.		
<b>RECOMMENDED USE</b>	: For use as the final coats over Firetex range of single pack thin film intumescent coatings to provide exterior durability where the construction phase is extended, or where the fire protected steelwork is permanently exposed. In all cases please consult Leigh's Customer Service Department.		
<b>ENDORSEMENTS</b>	: <b>1998 COMPLIANT</b> - 1990 EPA-PG6/23(97) Clause 20(d) - <b>Industrial</b> : <b>1998 COMPLIANT</b> - 1990 EPA-PG6/23(97) Clause 20(e) - <b>Marine</b>		
<b>RECOMMENDED APPLICATION METHODS</b>	: Airless Spray : Brush : Roller (short pile only)		
<b>COLOUR AVAILABILITY</b>	: Full range.		
<b>FLASH POINT</b>	: Base : 30°C	Additive : 58°C	
<b>% SOLIDS BY VOLUME</b>	: 54 ± 3% (ASTM-D2697-91)		
<b>V.O.C.</b>	: 412* grammes/litre * Calculated from solids by volume determination.		
<b>TYPICAL THICKNESS</b>	: <b>Dry film thickness</b> : 75 microns	: <b>Wet film Thickness</b> : 139 microns	: <b>Theoretical coverage</b> : 7.2 m <sup>2</sup> /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.		
<b>PRACTICAL APPLICATION RATES- microns per coat</b>	: <b>Airless Spray</b>	: <b>Brush</b>	: <b>Roller</b>
	: Dry 75*	: 50	: 50
	: Wet 139	: 94	: 94
	* Maximum sag tolerance with overlap typically 100µm dry by airless spray.		
<b>AVERAGE DRYING TIMES</b>	: <b>At 15°C</b>	: <b>At 23°C</b>	
<b>To touch</b>	: 1½ hours	: 1 hour	
<b>To recoat</b>	: 8 hours	: 6 hours	
<b>To handle</b>	: 24 hours	: 16 hours	
	<i>These figures are given as a guide only. Factors such as air movement and humidity must also be considered.</i>		
<b>RECOMMENDED CLEANSER</b>	: Leigh's Cleanser/Thinner No. 5 (for cleaning) : Leigh's Cleanser/Thinner No. 15 (for thinning)		
<b>RESISTANCE TO</b>	: Moisture - Good	: Aliphatic solvents - Good	
	: Acid spillage - Moderate	: Abrasion - Good	
	: Alkali spillage - Moderate	: Weather - Excellent	
<b>RECOMMENDED TOPCOATS</b>	: Not normally required, but indefinitely overcoatable with itself.		
<b>POT LIFE</b>	: 3½ hours at 15°C	: 2½ hours at 23°C	
<b>PACKAGE</b>	: A two component material supplied in separate containers to be mixed prior to use.		
<b>Pack Size</b>	: 20 litre and 5 litre units when mixed.		
<b>Mixing Ratio</b>	: 9 parts base to 1 part additive by volume.		
<b>Weight</b>	: 1.42 kg/litre (may vary with shade).		
<b>Shelf Life</b>	: Minimum 12 months.		

**SURFACE PREPARATION:**

Ensure surfaces to be coated are dry and free from all visible traces of surface contaminants.

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**APPLICATION EQUIPMENT:****Airless Spray**

Nozzle Size : 0.33mm (13 thou)  
Fan Angle : 65°  
Operating Pressure : 210kg/cm<sup>2</sup> (3000 psi)

The airless spray details given above are intended as a guide only. Details such as fluid hose length and diameter, paint temperature and job shape and size all have an effect on the spray tip and operating pressure chosen. However, the operating pressure should be the lowest possible consistent with satisfactory atomisation. As conditions will vary from job to job, it is the applicators' responsibility to ensure that the equipment in use has been set up to give the best results. If in doubt Leigh's Customer Service Department should be consulted.

**Brush**

The material is suitable for brush application. Application of more than one coat may be necessary to give equivalent dry film thickness to a single spray applied coat.

**Roller**

The material is suitable for roller application using a short pile roller. Application of more than one coat may be necessary to give equivalent dry film thickness to a single spray applied coat.

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**APPLICATION CONDITIONS AND OVERCOATING:**

This material should preferably be applied at temperatures in excess of 10°C. In conditions of high relative humidity, ie 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 Leigh's Customer Service Department.

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

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**ADDITIONAL NOTES:**

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

The curing reaction of the material 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.

Storage at high temperatures will affect build properties.

Numerical values quoted for physical data may vary slightly from batch to batch.

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**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 this product without first making further enquiries as to the suitability of the product for the intended purpose, does so at their own risk and W & J Leigh & Co. shall accept no liability for the performance of the product or for any loss or damage or impairment of any kind.

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