

## **Pentazone 1000**

Solvent free liquid Epoxy

### **PRODUCT DESCRIPTION**

Heavy Duty, Zero VOC, High Build, Special Aliphatic Amine cured epoxy Coating containing special type of repellent additives and reinforced Composites. The Product contains non toxic constituents which are non-carcinogenic and has no health hazards

Product is capable to be applied where resistance to all type of mild chemicals, Oils, Lubricants spillage, Acid, Alkali is required. This can withstand Chlorides and Sulfates present in soil and also withstand temperature from -20 °C to 100 °C.

Permeability to water vapors corrosion is of high standard and resistance to wet corrosive situations

### **INTENDED USES**

For application cleaned and neatly prepared steel as well as concrete surface.

Specially designed to meet the Aggressive environmental conditions present in Fertilizers & heavy Chemical Industries and recommended for underground pipelines and structures. It meets the requirement of BS/DIN EN 10289:2002 Class -C, Type-3

Suitable for application on concrete and brick surfaces of Electronic & Pharmaceutical Industry where dust collection is not allowed. The surface can easily be cleaned with hot water, low pressure steam and compressed air

It can be used for internal casing of Pumps, Heat exchangers and filters etc. where abrasive slurry is used for circulation

### **PRACTICAL INFORMATION FOR Pentazone 1000**

<b>Color</b>	Grey/Red/other dark colours
<b>Gloss Level</b>	Semi Glossy to Glossy
<b>Volume Solids</b>	100 %(Zero VOC- No diluents or Solvents)
<b>Typical Thickness</b>	800-1500 microns /coat dry equivalent to 800-1500 microns wet. (Zero Shrinkage)
<b>Theoretical Coverage</b>	1.25 m <sup>2</sup> /liter at 800 microns D.F.T. at stated volume solids (Apply 2 coats to achieve 1500 microns by single leg cold application airless spray)
<b>Practical Coverage</b>	Allow appropriate loss factors
<b>Method of Application</b>	Plural Component hot Airless Equipment/ Roller for 1500 microns in one coat . With single component Airless spray DFT up to 500 microns can be achieved in single coat. For small areas/touch up brush can be used

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#### Drying Time & Over Coating Intervals.

Temperature	Touch Dry	Hard Dry	Over coating Interval of Pentazone 1000 with self		Over coating Interval with recommended topcoats	
			Minimum	Maximum	Minimum	Maximum
25°C (77°F)	3 hours	16 hours	8 hours	15 Days	8 hours	6 Days
45°C (104°F)	2 hours	8 hours	6 hours	10 Days	8 hours	4 Days

#### REGULATORY DATA

Flash Point	Base (Part A)	C/A (Part B)	Mixed
	121°C	113°C	119°C

#### PRODUCT CHARACTERISTICS

In order to achieve best performance with this product ensure the best surface preparation. When applied coat by brush & Rollers ensure thorough wetting out of the substrate by **Pentazone 1000** for Stripe Coating with brush is recommended.

Power agitation at greater than 800 RPM for minimum 15 minutes is highly recommended. Do not Mix Curing agent Part- B unless product is homogeneous paste.

**Pentazone 1000**, is capable of being applied at higher thickness such as 800-1000 Microns in one coat when applied with Hot Plural Airless Spray When applying by methods other than airless spray, the required film build is unlikely to be achieved. Low or high temperatures may require specific application techniques to achieve maximum film build

Surface temperature must always be a minimum of 3° C (5° F) above dew point.

Level of sheen and surface finish is dependent on application method. Avoid using a mixture of application methods whenever possible. Product is Fast Cure Epoxy Amine technology & surface can be taken for the early services other than exposure to the mild chemicals. Early Foot / Equipments traffic is possible after 16 Hrs. of Drying.

For chemical resistance complete cure of 7 days at 25°C or 4 Days at 40°C must be given.

In common with all epoxies **Pentazone 1000** will chalk and discolor on exterior exposure. However, these phenomena are not detrimental to anti-corrosive performance. Premature exposure to pounding water will cause a color change, especially in dark colors.

If used for the exterior exposure can be top coated with Pentathane 4510 or high Volume solid Polyurethane Top coats.

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### SYSTEMS COMPATABILITY

**Pentazone 1000** is normally be applied to correctly prepared steel.

It is recommended to use **Pentazone 1000** Direct to metal & fully cured concrete at the minimum DFT of 500 Microns in one coat. For Brick surfaces one primer coat of Pentadur 550 clear primer is recommended

**Pentazone 1000** can be over coated by with:-

Pentadur Epoxy / Pentaseal Epoxy series.  
Pentathane HS /4510 - Polyurethane Top Coats (Only in case of the Exterior Exposure)

Other suitable primers / topcoats are available. Consult Grauer & Weil India Ltd.

### SURFACE PREPARATION

The performance of this product will depend upon the degree of surface preparation surface to be coated must be clean, dry and free from contamination. Prior to paint application all surfaces should be assessed and treated in accordance with ISO 8504:1992. Accumulated dirt and soluble salts must be removed.

#### **Abrasive Blast Cleaning**

The best performance will be achieved when **Pentazone 1000** is applied to surfaces prepared to a minimum of Sa2½ (ISO 8501-1:1988) or SSPC-SP 10. Surface defects revealed by the blast cleaning process, should be ground, filled or treated in the appropriate manner. A surface profile of 55-65 microns (2- 3 mils) is recommended.

This product will perform best when applied on Surface preparation to SA-3 (ISO-8501) or NACE 1 or SSPC -SP-5.

### APPLICATION

<b>Mixing</b>	Material is supplied in two containers as a unit. Always mix a complete unit in the proportions supplied. Once the unit has been mixed it must be used within the working pot life specified. (1) Agitate Base (Part A) with a power agitator. (2) Combine entire contents of Curing Agent (Part B) with Base (Part A) and mix thoroughly with power agitator		
<b>Mix Ratio</b>	3.0 parts: 1.00 parts by volume		
<b>Working Pot Life</b>	15° C 1 hours	25° C 40 Min.	40° C 30 Min. (Max)
<b>Airless Spray</b>	Recommended	- Tip range 0. 0.76- 0.8 mm (31 -34 thou) - Total output fluid pressure at spray tip not Less than 176 kg/cm <sup>2</sup> (2,500 p.s.i) Use Tip>39Thou in case of High Dft Required	

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<b>Trowel</b>	Recommended	Typically 175-300 microns (7-12 mils) can be achieved
<b>Thinner</b>	Not Recommended	Normally No thinner is required.
<b>Cleaner</b>	Thinner 145	
<b>Work Stoppages</b>	Do not allow material to remain in hoses, gun or spray equipment. Thoroughly flush all equipment with Thinner 145. Once units of paint have been mixed they should not be resealed and it is advised that after prolonged stoppages work recommences with freshly mixed units.	
<b>Clean Up</b>	Clean up all equipment immediately after use with Thinner 145. It is good working practice to periodically flush out spray equipment during the course of the working day. Frequency of cleaning will depend upon amount sprayed, temperature and elapsed time, including any delays.	
	All surplus materials and empty containers should be diagnosed of in accordance with appropriate regional regulations / legislation	

#### TECHNICAL PROPERTIES

TEST	RESULTS
<b>Service Temp.</b>	(-) 20 dc to 80 dc
<b>Handling Temp.</b>	(-) 20 dc to 60 dc
<b>Hardness at 800 microns as per ASTM D2240</b>	>75 Shore D
<b>Cut back</b>	160 microns
<b>Holiday Test (5-10V / micron)</b>	Passes
<b>Impact EN 10289/ASTM G14-88 at 1000mic DFT</b>	>5 Joule passes
<b>Adhesion( Pull up) ASTM D 4541</b>	>10 MPa
<b>Cathodic Desbondment (30 days) ASTM G -8</b>	< 5 mm
<b>Indentation test at 1000 mic(2.5 kg/24 hrs)</b>	< 0.2 mm
<b>Adhesion test (100 h dipping in tap water)</b>	Passes rating 1

#### PRECAUTIONS

This product is intended for use only by professional applicators in industrial situations in accordance with the advice given on this sheet, the Material Safety Data Sheet and the container(s), and should not be used without reference to the Material Safety Data sheets (MSDS) which Grauer & Weil India Ltd has provided to its customers.

# TECHNICAL DATA SHEET

## Grauer & Weil (India) Limited Paints



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All work involving the application and use of this product should be performed in compliance with all relevant national, Health, Safety and Environmental standards and regulations.

In the event welding or flame cutting is performed on metal coated with this product, dust and fumes will be emitted which will require the use of appropriate personal protective equipment and adequate local exhaust ventilation.

If in doubt regarding the suitability of use of this product, consult Grauer & Weil India Ltd for further advice.

#### PACK SIZE

20 lts. unit	<b>Pentazone 1000</b>	Base	15 liters in a 20 liter container
	<b>Pentazone 1000</b>	Curing Agent	5 liters in a 05 liter container

#### STORAGE

Shelf Life 12 months minimum at 25 deg. C (77 deg. F). Subject to re-inspection thereafter. Store in dry, shaded conditions away from sources of heat and ignition.

#### Disclaimer

The information given in this sheet is not intended to be exhaustive and any person using the product for any purpose other than that specifically recommended in this sheet without first obtaining written confirmation from us as to the suitability of the product for the intended purpose does so at his own risk. Whilst we endeavor to ensure that all advice we give about the product (whether in this sheet or otherwise) is correct we have no control over either the quality or condition of the substrate or the many factors affecting the use and application of the product. Therefore, unless we specifically agree in writing to do so, we do not accept any liability whatsoever or howsoever arising for the performance of the product or for any loss or damage (other than death or personal injury resulting from our negligence) arising out of the use of the product. The information contained in this sheet is liable to modification from time to time in the light of experience and our policy of continuous product development.

It is the user's responsibility to check that this sheet is current prior to using the product. Issue date: April 2010.