Petcor 3600

Barium Free Corrosion Inhibitor

Description

Petcor 3600 is a non-emulsifiable, alkali resistant, water displacing rust preventative which is particularly effective removing water from metal parts after machining operations or alkali cleaning.

Petcor 3600 can be blended with a wide range of base stocks or petroleum solvents depending on the type of film required.

The most effective protective film is obtained from solvent cutbacks of 3600 once the solvent has evaporated. Oil blends will produce softer coatings which are less effective. The water displacement and non-emulsifying properties (even in the presence of alkali) are not affected by the use of oil or solvent.

Petcor 3600 contains no Barium.

Advantages

- Excellent non-staining rust preventive.
- Free from heavy metals, such as Barium; improves environmental profiles and helps reduce disposal cost.
- Demulsibility at all additive concentrations.
- High stability in the presence of alkali.
- Excellent solubility in a wide range of base stocks and solvents.

Application

- Use as a rust and corrosion inhibitor. Protection is obtained from solutions containing as little as 5% Petcor 3600.
- Concentrations of 5% to 15% of Petcor 3600 in mineral spirits will provide humidity cabinet protection for 30 to 90 days or more.
- When used in low concentrations, the water displacing characteristics will be improved by adding 1% to 3% of a suitable dewatering agent.

Solubility

Petcor 3600 is soluble in most common solvents and petroleum and synthetic lubricant base stocks. Insoluble in water. However, it is recommended to verify the solubility in the base stocks used and compatibility with other additives.

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Typical Properties

Property	Typical	Min.	Max.	Method
Physical Appearance	Dark Solid	-	-	Visual
Density @15.6°C	0.905	-	-	ASTM D1475
Flash Point (°C)	178	-	-	ASTM D932
Saponification No. (mgKOH/g)	45	38	52	ASTM D94
Total Base Number (mgKOH/g)	28	-	-	ASTM D2896
Total Acid Number (mgKOH/g)	7	-	50	ASTM D974
Melting Point (°C)	36	32	37	ASTM D127

Storage and Handling

For specific information, consult the SDS.

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Report: Salt spray testing on Petrico Products

Product samples tested:-

Panel C: Petcor 3600 on prepared Q-panel at 21.01 micron film thickness.
Panel D: Petcor 3600 on prepared Q-panel at 18.45 micron film thickness.

The standard polished Q plates were prepared by being cleaned with low acid paper using toluene and then isopropanol, checking the final piece of paper used showed no sign of dirt from the plate on a final clean.

These were then spray coated with a solution of the product in solvent until the desired dry film thickness was achieved. The film thickness was calculated using the weight of dry product applied and the area covered.

Finally, when tested for salt spray resistance, ASTM B117 method was followed.

Testing Laboratory Used:-

Aerotech LABORATORIES

Accredited Nadcap™ Chemical Processing

UKAS TESTING 1993

Aerotech Laboratories Ltd.
Unit 20 Mercia Business Village
Westwood Business Park Coventry CV4 8HX
Tel : (024) 7647 4474 Fax : (024) 7647 4473
www.aerotechlabs.co.uk

Results:- Panels C and D

Salt Spray Accelerated Corrosion - Test Report

Test Report Number	:	***S95127***
Date Specimens Received	:	*05.07.17*
Date Test Report Issued	:	*09.11.17*
Purchase Order No.	:	*9869*

Specification and Test Method	:	*ASTM B117 (rack mount at 20°)*
Test Specimen(s) Description	:	*Steel panel, approx. 150mm x 100mm*
Surface Finish / Treatment	:	*Oil / wax treatment; labelled C & D*
No. of Test Pieces	:	*2 off*
Specimen Performance Requirement	:	*Run to 10% red & record hours.* *Disregard areas within 1 cm of edges and holes.*

Test Results

Treatment	Requirement	Exposure *(hr)*	Test Specimen Condition after Exposure
Oil / wax treatment	Run to 10% red & record hours		*All test specimens;*
		192	Early signs of surface degradation noted to panels.
		936	No significant developments from initial observations. Red corrosion to edges noted.
		1608	Panel D: Isolated spots to main surfaces, <10% corrosion.
		1776	Red corrosion assessed to be <10%.
		2160	Development of red corrosion to edges disregarded.
		2664	Significant red corrosion run off masking accurate assessment of percentage to main surfaces.

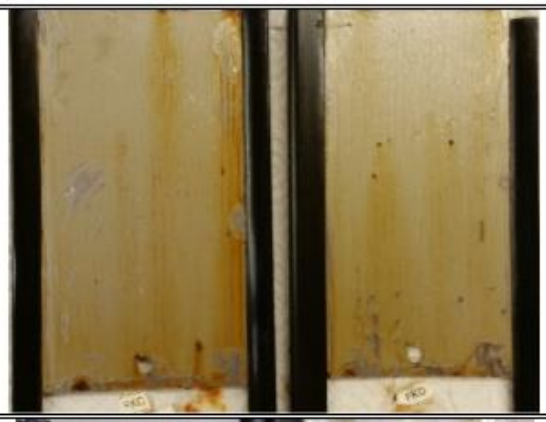
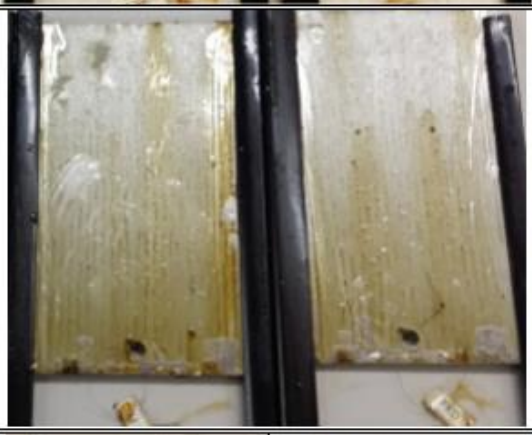
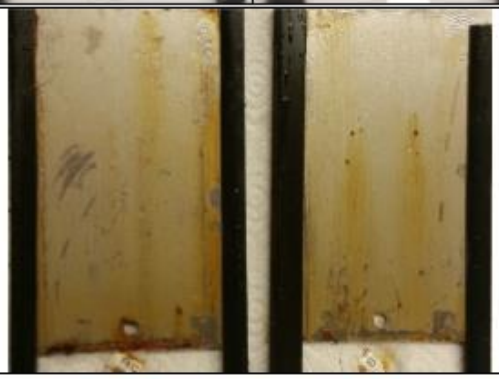
Salt: INEOS Enterprises, Runcorn
Salt solution: 50 ± 5 g/L in water conductivity <5µS/cm

In process and final photos of the panels:

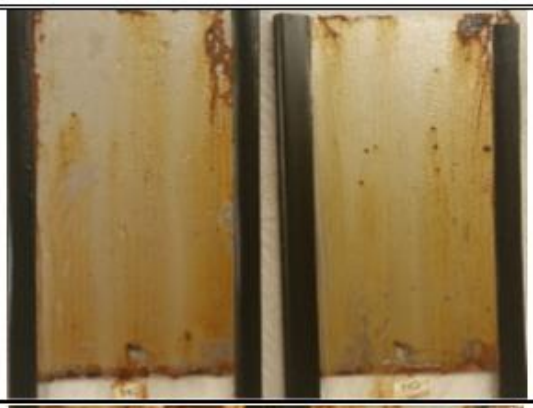
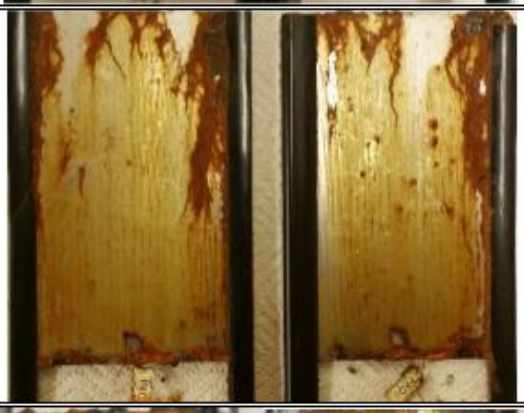
Panel C **Panel D**

Exposure *(hrs)*	Image
192	
264	
480	
768	

In process and final photos of the panels:

	Panel C	Panel D
936		
1032		
1176		
1272		

In process and final photos of the panels:

	Panel C	Panel D
1608		
1776		
2160		
2664