Ardrox® 2302

HOT BATH HEAVY-DUTY PAINT & CARBON REMOVER

1 Description

Ardrox® 2302 is a mixture of solvents, activators and corrosion inhibitors. It consists of two layers: an upper layer oil seal to prevent evaporation of the active paint removing solvents in the lower layer.

Ardrox® 2302 contains no phenolic compounds, aromatic solvents or heavy metals.

Ardrox® 2302 will remove a wide range of paint schemes including baked acrylics, epoxies, polyurethanes, and phenolics. It will also remove carbon or carbonaceous deposits, polymerized gum and lacquer deposits.

Approvals

✓ CFMI	CFM56
✓ GE Aviation	SOM 70-80-04
✓ IAE	V2500
✓ Pratt & Whitney	SPM 70-12-00
✓ Rolls Royce	CSS 235 & OMat 1/226
✓ SNECMA	DMR 70-129

Ask your Chemetall representative for a complete list of approvals

Conformances

✓ USAF	MIL-PRF-83936C
✓ Messier/ Bugatti/ Dowty	PCS 2700F
✓ ASTM	ASTMF-519

2 Required Chemicals

Ardrox® 2302
Ardrox® 2302 Seal
Ardrox® 2302 AA
Ardrox® 2302 SA

3 Physical and chemical properties

Property	Typical Value	Unit	Test Method
Appearance	pale straw-colored, diphase liquid	-	-
Density (typical)	1.05 to 1.07 @ 20 °C (68 °F)	g/ml	-
Flash Point (upper layer)	190 (374)	°C (°F)	Cleveland Open Cup
Flash Point (lower layer)	108 (228)	°C (°F)	Cleveland Open Cup

These are typical values only and do not constitute a specification.

4 Application

Ardrox® 2302 is used as supplied. The total content of the container must be emptied into the tank. The recommended operating temperature range is 80 - 110 °C (176 - 230 °F). The product may be used for short periods at higher temperatures up to a maximum of 140 °C (284 °F) for removal of more obdurate finishes. In all cases, ensure that the seal is maintained properly and all local regulations complied with, considering the 108 °C (228 °F) flash point of the lower layer.

a) **Immersion** - Immerse dry components to be stripped in Ardrox® 2302 in the lower layer until paint or carbon deposits have become fully softened or detached.
b) **Drain** - drain components (over Ardrox® 2302 tank) for approximately one minute.
c) **Immersion** - Immerse components in an Ardrox® primary cleaner at 10 % by volume at room to reduce vapors and aid subsequent pressure rinsing.
d) **Pressure rinse** - Pressure rinse components. The use of an Air/Water Gun or high pressure water rig is recommended.
e) **Dry** - Dry components thoroughly using compressed air (or an air recirculation oven at 40 - 80 °C / 140 - 176 °F).

<u>The following points must be observed when operating a tank of Ardrox® 2302:</u>

- No water must be allowed to enter the tank.
- Components to be stripped must be dry and preferably free from oil and grease before immersion into the tank.
- If more than one immersion is needed, ensure that the components are thoroughly dried after rinsing before re-immersion into the tank.
- Maintain the depth of the upper layer (oil seal). See method of control sheet.
- When making additions of Ardrox® 2302 to a tank, ensure that the total contents of the container are emptied into the tank.

5 Effects on materials

No significant corrosion is likely to be encountered when Ardrox® 2302 is used in the prescribed manner on most metals including magnesium, aluminum, mild steel, copper, brass, titanium, and cadmium plate. It also has negligible effect on anodizing or conversion coatings on aluminum or magnesium. As conditions of use may vary, particularly where dissimilar metals are in close contact, intended users are advised to check their specific requirements in this respect.

Ardrox® 2302 will degrade PMA sheeting and most other plastic materials. It will also soften most rubbers. Ardrox® 2302 meets the hydrogen embrittlement requirements of MIL-PRF-83936C.

Equipment/tanks should be constructed of stainless steel.

6 Storage

Store in a cool place, with protection from freezing conditions.

7 Waste release

Any release shall respect all the applicable national and local regulation.

8 Safety guidance

Before operating the process described it is important that this complete document, together with any relevant Safety Data sheets, be read and understood.

9 General Information

Chemetall supplies a wide range of chemical products and associated equipment for cleaning, descaling, paint and carbon removal, metal working and protection and non-destructive testing. Sales Executives are available to advice on specific problems and applications.

Method of control

Controls should be performed on a monthly basis or more frequently as determined by the work throughput of the tank.

Depth of oil seal and lower phase

a) Measure the total depth of solution in the tank with a dipstick.
b) Measure the depth of the oil seal by immersing a thin glass tube into the tank and raising the tube whilst blocking the top with a finger or thumb. The seal can then be easily seen and measured.
c) Calculate the depth of the lower phase by subtracting the depth of oil seal (b) from the depth of tank solution (a).
d) Add Ardrox® 2302 as required to maintain the depth of the lower phase. Ensure that the entire contents of a container are emptied into the tank to preserve the correct seal/lower phase ratio.
e) Recheck the seal depth and add Ardrox® 2302 Seal as required to maintain a depth of 15 % of the lower layer and minimum 20 cm.

Alkali and solvent content

The alkali content of Ardrox® 2302 may be determined by titration with a standard acid. This titration will also be a guide to solvent content of the bath; if a high titre is obtained then Ardrox® 2302 Solvent Additive should be added to reduce the alkali content to the correct level.

Titration

Transfer approximately 250 ml of the lower phase into a suitable separating funnel and allow to stand until any oil seal present has separated out to the top of the solution. Run off the lower phase into a beaker, and pipette 25 ml into a 250 ml volumetric flask and dilute to the mark with distilled or deionised water. Thoroughly shake the flask and its contents and titrate 25ml aliquots of the solution against 1M HCl solution using Methyl Red as an indicator. Record titre in ml. Ardrox® 2302 has a titration value of 14.2 ± 0.5 ml.

Additions

For each 1.0 ml below the correct titre value, add 23.5 ml of Ardrox® 2302 Alkali Additive per litre of tank solution (lower phase only). For each 1.0 ml above the correct titre value, add 68 ml of Ardrox® 2302 Solvent Additive per litre of tank solution (lower phase only).

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