Polysulfide Sealant Remover

1 General Description
Ardrox® 2323A is a unique solvent cleaner, specifically formulated to dissolve NAFTOSEAL® and other polysulphide-based sealants used in the aircraft industry. Ardrox® 2323A can remove semi and fully cured polysulfide based sealants from mixing and application equipments as well as from tools and assembling equipments. Ardrox 2323A is free from pyrrolidone solvents.

2 Physical and Chemical Properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Unit</th>
<th>Typical Value</th>
<th>Test Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>-</td>
<td>Clear yellow liquid</td>
<td>-</td>
</tr>
<tr>
<td>Density</td>
<td>g/ml</td>
<td>1.14 @ 20°C</td>
<td>-</td>
</tr>
<tr>
<td>pH</td>
<td>-</td>
<td>7 at 10g/L</td>
<td>-</td>
</tr>
<tr>
<td>Flash Point</td>
<td>°C</td>
<td>108</td>
<td>ASTM D93</td>
</tr>
</tbody>
</table>

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

3 Application
Ardrox® 2323A provides a method for completely removing NAFTOSEAL® and other polysulphide sealant contamination from mixing equipment, application equipment, tools and assembly components. It will completely dissolve uncured, semi-cured and fully cured polysulphide sealants.

3.1 Cleaning tools, equipment and assembly components
The cleaning process involves immersion of the sealant-contaminated components in a bath containing Ardrox® 2323A. Cleaning times can be considerably reduced by agitation (mechanical and/or ultrasonic) and by increasing the temperature of the immersion bath. The maximum recommended immersion bath temperature is 60°C.

Ardrox® 2323A can be used repeatedly, however, its cleaning effectiveness will be gradually reduced as the level of sealant contamination within the working solution increases.

The effective cleaning life of the Ardrox® 2323A working solution is determined by experimentation. The immersion/cleaning time can be increased to maintain the effectiveness of the cleaning process. When the cleaning time becomes too long, then the working solution should be discarded and replaced with fresh Ardrox® 2323A cleaning solvent.

Using ultrasonic agitation and a working solution temperature of 60 °C, typical immersion times are 20 to 60 minutes.
At room temperature (15 to 35 °C), soaking time may require over 2 hours depending on the agitation of the tank and the thickness and degree of curing of the sealant.

Ardrox® 2323A can be used to clean aircraft assembly components such as slave bolts, Wedgelock pins and dowels.
3.2 Cleaning meter-mixing machines

Ardrox® 2323A is used as a cleaner/flushing solvent for the complete removal of sealant contamination from the static and dynamic mixing elements, associated dispensing tubes and nozzles in the meter-mixing machines used to mix and dispense NAFTOSEAL® and other polysulhide sealants. The recommended method involves continuous flushing of Ardrox® 2323A through the mixing/dispensing system using a re-circulating pump.

For the cleaning/flushing process the Ardrox® 2323A is used at ambient temperature (15 to 35 °C). The time required for Ardrox® 2323A to completely dissolve sealant depends on the level of contamination. Cleaning/flushing times of 1 to 4 hours are typical.

Care should be taken to ensure that sufficient cleaning/flushing time is allowed for the sealant contamination to be completely dissolved and removed from the internal surfaces of the meter-mix equipment. If insufficient cleaning/flushing time is allowed, then the sealant will only be softened and can become lodged within the equipment, this can cause subsequent blockage of the meter-mix equipment when it is returned to service.

Ardrox® 2323A can be used repeatedly; however, its cleaning effectiveness will be gradually reduced as the level of sealant contamination within the cleaning/flushing working solution increases.

4 Effects on materials

No significant corrosion is likely to be encountered when Ardrox® 2323A is used in the prescribed manner on most metals including aluminum, mild steel, copper, brass and titanium. However, polymer materials such as PMMA or some rubbers may be affected.

Equipment/tanks should be constructed of mild or stainless steel.

5 Storage

Store in a cool place; protect from freezing conditions.

6 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.

7 Waste release

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

8 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.