

## Product Name

Smoothcote – Smooth Surface Finish Sacrificial Aluminium Coating

## Product Description

A product similar to Ipcote IP9183-R1, but with a smoother surface finish. With a typical sprayed surface finish off approximately 20 micro inches, this product presents little resistance to air flow or roughness resulting in low dirt and carbon deposit pick up. This material is also capable of being polished to finer finishes than IP9183-R1. Finishes of less than 10 micro inches have been achieved. A very smooth surface such as this is necessary to reduce friction and to enhance efficiency in aero engines.

This product has been specifically developed as part of a system replacement to provide an alternative to 5380DP. Used in conjunction with IP9444 (Smoothseal) the two products are designed to give similar appearance and surface finish to competitor products.

## REACH Status

This coating contains Chromium Trioxide: CAS No: 1333-82-0. This is classified as a SVHC, and under annex XIV

## UK and EU Authorisation – October 2024

### October 2024 – UPDATE - UK

AFA032-01 – Chrome Conversion coating use Aerospace (DOW19)	<b>UKREACH/24/15/4</b>
AFA033-01- Formulation of mixtures	<b>UKREACH/24/16/1</b>
AFA037-01 – Slurry Coatings Aerospace use	<b>UKREACH/2024/18/1</b>
AFA045-01 – Formulation – Industrial	<b>UKREACH/24/22/0</b>
AFA045-02 – Industrial gas turbine use	<b>UKREACH24/22/1</b>

### October 2024 – UPDATE – EU

AFA344 – Slurry Coating	<b>REACH/24/68/3</b>
AFA337-02 – Chrome Conversion Coating Aerospace use (DOW19)	<b>REACH/24/61/1</b>

### Extension Dates from October 2024:

UK – 05/09/2036 (12 Years)

EU – 7 YEARS (Dates to be Confirmed – Still ongoing)

EU – DOW 19 a 12 year extension

## Approvals and Specifications

Pratt and Whitney Canada: CPW88; Issue \*L\*; 16 June 2009  
Turbomeca France: LB598  
Alternative for 5375 and 5380DP systems

## Performance Properties

Heat Resistance	1000 hours at 1115°F; (600°C)
Cyclic Testing*	10 Cycles
*1 Cycle comprises of 20 Hours at 840°F; (450°C), 2 Hours Salt Spray 2 Hours 100% Humidity.	Consecutive to each other.
Immersion in Ester Lubricants	100 hours at 300°F (150°C) show no peeling or softening
Immersion Resistance Skydrol	3 hours at 160°F; (70°C) or softening
Hot Salt Spray ASTM B-117	2500 Hours at 50-micron film thickness
Cyclic testing 4 hours at 150°C (300°F) 20 hours in saltwater fog	Pass without Blistering as part of a system
Adhesion, ISO2409	< Grade 1 Pass
Conductivity	< 30 ohms, conductive

## Components

Single component system. May be thinned for use using de-mineralised / de-ionised water.

# Technical Data Sheet



IP9442

Edition February 2025 Revision 1

## Application

Refer to IPAS666 for full detailed instructions.

<b>Surface Preparation</b>	Degrease and Shot Blast as required. Ensure surfaces to be coated are clean and free from dust/dirt.
<b>Paint Preparation</b>	Roll for 24 Hours prior to initial use. The coatings will need to be rolled or mixed periodically during use to ensure full dispersion of the Aluminium content is maintained.
<b>Mixing Ratio</b>	Single pack product, can be thinned with de-min or de-ion water.
<b>Application Method</b>	Spray apply a thin but wet coat. Allow to flash off for 15 minutes, or until a matt grey finish is obtained. Apply second coat to the same criteria and a further 15 minutes flash off.
<b>Drying and Curing</b>	Cure for 1 hour at 375°F; (190°C), then cure according to the specification requirements detailed by the relevant aero engine company. Alternatively cure for minimum 1 hour at 660°F; (350°C) followed by bead peening with 120-220 Silica Grit

## Liquid Technical Properties\*\*

Supply Viscosity	35-50 secs ISO4 @ 20°C
Flash Point	Non-Flammable water based
Density	1.52 kg/lt
VOC Content	9.5 g/l
Colour	Aluminium/Matt Grey when dry
Gloss	Matt Grey
Thinner	De-ionized Water
Solvent/Clean Up	Water
Theoretical Coverage	10m <sup>2</sup> at 35 microns
Pack Size	1 Litre and 500ml Containers
Pot Life	Not Applicable

\*\* - The values referenced are obtained from Batch testing using controlled Quality techniques.

## Storage

Highly flammable liquid: store and use in accordance with the flammable liquid regulations

**Shelf Life\*\*\*:** 12 months temperate; 6 months tropical

**Before use, refer to Product Safety Data Sheet**

\*\*\* - Indestructible Paint decline any responsibility deriving from improper storage of Product and its Catalyst.

## Contact

For Safety Data Sheets or other Information please contact our sales Department:

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