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**Product Name:** Smoothcote – Smooth Surface Finish Sacrificial Aluminium Coating

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**Product Number:** IP9442

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**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.

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**Approvals/Specifications:**

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

The material passes the performance test criteria as follows:

- 1000 hours of 600°C (1115°F) dry heat
  - 100 hours at 150°C (300°F) in ester lubricants
  - 3 hours at 70°C (160°F) in Skydrol
  - 2500 hours continuous salt spray @ 50 micron (2 thou) film thickness
  - 10 cycle high heat humidity, salt spray. 1 cycle comprises 20 hours at 450°C (840°F), 2 hours in an ASTM.B117 salt spray cabinet and 2 hours in high 100% humidity cabinet. 10 cycles are consecutive to each other.
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# Technical Data Sheet



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## Components:

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

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## Application:

### Surface Preparation:

Degrease and shot blast as required

### Paint Preparation:

Roll for 24 hours prior to initial use. The coating will need to be rolled or mixed periodically during use to ensure full dispersion of the Aluminium content is maintained.

### Application Method:

Refer to IPAS 666 application details.

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.

### Drying Curing:

Cure for 1 hour at 190°C (375°F), then cure according to the specification requirement detailed by the relevant aero engine company.

Typically, Rolls Royce may specific 1 hour at 560°C (1050°F); P&W Canada may stipulate 4 hours at 540°C (1000°F), or 5 hours at 515°C (960°F).

Alternatively cure for minimum 1 hour @ 350°C (660°F) followed by bead peening with 120-220 Silica Grit.

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## Technical Properties:

<b>Supply Viscosity:</b>	35-45 secs ISO4 @ 20°C (Appox 16-18 secs ZAHN2 cup)
<b>Flash Point:</b>	Non-Flammable water based
<b>VOC Content:</b>	0 g/l
<b>Colour:</b>	Aluminium / Matt Grey (dry)
<b>Pack Size:</b>	1 and 5 litre plastic containers
<b>Density:</b>	1.52 kg/l
<b>Gloss:</b>	Matt Grey

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<b>Thinner:</b>	Deionized water
<b>Solvent/Clean Up:</b>	Water
<b>Catalyst:</b>	N/A
<b>Theoretical Coverage:</b>	10 sq m/ltr @ 35 microns

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## Storage:

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

**Shelf Life:** 6 months temperate

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

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## Safety Data Sheets:

For Safety Data Sheets please contact our Sales Department:

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