
Product Name: Polyurethane Erosion and UV Resistant Coating

Product Number: IP80-158

Product Description: Multi pack Elastomeric coating formulated to provide excellent erosion resistance.

High performance chemical resistant polyurethane coating that provides exceptional erosion and UV resistance compared to typical exterior durable 2 pack coatings

Suitable for use in a variety of applications, but typically on aero engine spinners, wing leading edges, engine nacelle leading edges and radar housings for aero applications.

Approvals/Specifications: Formulated to meet the requirements of Def Stan: 80-158 when used a system with suitable Epoxy Primer and/or Polyurethane Colour coat.

Performance: Designed to provide a thick Flexible coating for the protection of surfaces against sand, dust, small particle and rain erosion. In-house testing demonstrates a marked improvement over current IP6-CLEAR with regards to both flexibility and erosion resistance.

Tested as a system: IP9064-6362 (BS2X33 Primer), IP6-0000 (BS2X34A/B White Gloss), IP80-158 Clear.

Mandrel testing: $\geq 2\text{mm}$ - Pass

Erosion resistance – 80 grit Aluminium Oxide erosion to MSRR9910, $\leq 16\text{mg}$ coating loss per 4.5kg erosion grit.

Environmental degradation – Pass ≥ 500 hours QUV exposure when applied over a 2pk PU or 2pk Epoxy Base Layer. The combined coating is resistant to gloss or flexibility degradation of the top IP80-158 layer and does not demonstrate UV Light damage to the base PU or Epoxy coatings thus preventing delamination of the coating from substrate.

Components:

- Base A – IP80-158-Part-A
- Base B – IP80-158-Part-B
- Reducer – IP-MEG-Reducer

Application:

Surface Preparation:

Ensure surfaces are clean and free from any dust, dirt or surface contaminants

Metals:

- Light shot blast

Base Coat Selection for IP80-158 may be:

- (1) Apply 1 coat 2 pack etch primer to BSX32 (IP9064-4853) at 7-10 microns plus 1 coat of 2 pack strontium chromate primer to BSX33 (IP064-6362)
- (2) IP9064-6362 Chromate Primer, IP3-6362 Low VOC Chromate Primer, IP9064-6500 Chrome Free Primer or IP3-6700 Chrome Free Primer.
- (3) IP6 Range Top coat if desired to BS X2 34
- (4) **Composites:** IP9064 or IP3 2pk epoxy colour coat applied as adhesion promoter onto composite structures to provide primary bond layer and/or base colour.

Paint Preparation:

Mixing Ratio:

- Part A – IP80-158-Part-A: 1 part by volume
- Part B – IP80-158-Part-B: 1 part by volume
- Part C – IP-MEG-REDUCER: 1 to 2 parts by volume

Stir thoroughly before use to ensure full mixing – mixed pot life up to 4 hours.

Application Method:

Apply by spray, conventional, HVLP or compliant.

Apply in smooth thin coats, building film thickness slowly. Build coating until a consistent wet film is achieved and allow to gel.

Avoid application of thick films as these can result in runs and can lead to solvent popping.

Recommended application is to apply 3 coats with 4 hours between each coat or a 30-minute part cure @ 80 ± 5°C.

Final cure 30 minutes @ 80 ± 5°C and then ramped up for 4 hours @ 125 ± 5°C, or air dry for a minimum of 7 days at room temperature ≥17°C

Drying Curing:

Force Cure:

- **Flash off:** 15-30 minutes
- **Cure:**
 - o **Pre Cure:** 30 minutes @ 80 ± 5°C
 - o **Full Cure:** 4 hours @ 125 ± 5°C

Air Drying:

Minimum 7 days at ≥17°C

Technical Properties:

Supply Viscosity:	Ready for Use
Pot Life:	Up to 4 hours
Flash Point:	3-5°C
VOC Content:	450g / litre

Colour:	Clear
Pack Size:	1.26kg kit
Density:	Part A: 1.01 g / ml Part B: 1.07 g / ml
Gloss:	Dries to glossy finish
Thinner:	IP-MEG-Reducer
Solvent/Clean Up:	40006
Catalyst:	Sold as Kit
Theoretical Coverage:	9m ² / kg per 50 micron

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

Disclaimer:

The information printed in this publication is based upon the research and experience of Indestructible Paint Ltd. No representation of warranty is made, however, concerning the accuracy or completeness of the information presented in this publication. Indestructible Paint Ltd make no warranty or representation of any kind, express or implied. Including without information limitation any warranty or merchantability or fitness for any particular purpose, and no warranty or representation shall be implied by law or otherwise. Any products sold by Indestructible Paint Ltd are not warranted as suitable for any particular purpose to the buyer. The suitability of any products for any purpose in particular to the buyer is for the buyer to determine. Indestructible Paint Ltd assumes no responsibility for the selection of products suitable to the particular purpose of any particular buyer. Indestructible Paint Ltd shall in no event be liable for any special, incidental or consequential damages.

Safety Data Sheets:

For Safety Data Sheets please contact our Sales Department:

Tel: +44(0)121 702 2485

Email: sales@indestructible.co.uk