

## PRODUCT DESCRIPTION

51PC151™ is a high performance, highly fluorinated polyurethane topcoat formulated for thin film applications, offering general ease of handling and application. It is a two component, solvent based, high solids system offering outstanding performance properties.

Designed as an "osmotic barrier" for full immersion surface, the patented "fluoroshield" protection of 51PC151™ makes it virtually impervious to moisture and oxygen permeation. 51PC151™ exhibits unsurpassed performance for all physical properties as well as resistance to chemicals, weathering and UV degradation.

51PC151™'s low surface tension properties and hydrophobic surface also make it a superior coating for marine hull applications.



## CHARACTERISTICS

An inert topcoat designed for full immersion service to overcoat virtually any surface and make it highly resistant to moisture and oxygen permeation, corrosion and chemical attack, UV breakdown, and abrasion. FPU® coatings exhibit outstanding weathering characteristics in both salt and fresh water environments. Developed through extensive research and development, FPU® has proven service history for over two decades in military and non-military applications.

51PC151™ is designed specifically for marine hulls and includes the addition of special additives to further reduce friction and drag. Incorporating all the benefits of FPU, 51PC151™ is proven to reduce drag in the water, improve hull performance and fuel economy.

- An impenetrable barrier to marine boring organisms (readily cleaned of marine growth)
- Outstanding Hydrophobic and Oleophobic surface properties
- Impervious to moisture and oxygen permeation (Osmotic barrier)
- Highly flexible and outstanding impact and abrasion resistance
- Extremely low surface energy reduces friction and drag
- Highly resistant to attack by hydrocarbons and chemical products
- Water potable and completely non-toxic to marine environments
- Completely insensitive to UV radiation



## Application

For optimum appearance properties, 51PC151™ should be spray applied in two to three coats to a minimum of 2 mils DFT / 50 microns DFT. Always allow each coat to "flash off" to a tacked state prior to a following coat.

51PC151™ may also be spray applied, brushed or rolled in one coat, unreduced to the recommended DFT.

FPU® coatings must not be applied to surfaces at ambient temperatures above 35°C / 95°F. For optimum application properties, the temperature of the material should be between 10°C and 25°C / 50°F and 80°F prior to mixing and application. Apply the coating only when the surface temperature is more than 5°F or 3°C above the dew point temperature of the surrounding air and relative humidity is below 85%, in order to prevent moisture condensation on the surface.



## Mixing & Activation

Mixing ratio 2:1 by volume (2 parts base to 1 part activator)

Activator:	51AC150
Reduction:	00TR102 - Slow reducer
	00TR100 - Fast reducer
Spray Viscosity:	21-25 seconds #2 Zahn

51PC151™ is a two component coating system supplied in two separate containers. Part A is the base and Part B is the activator. Prior to activation, Base component (Part A) must be thoroughly mixed by mechanical agitation. Following agitation, with a paint stick, ensure all settled material is removed from the can bottom. After activation of Component A and Component B together, agitate for approximately 1-2 minutes. Reduce activated 51PC151™ to a maximum of 15% if required with recommended reducer and use immediately. 51PC151™ requires no induction period.





**Pot Life**

3 Hours @ 21°C / 70°F  
 1 1/2 Hours @ 32°C / 90°F    **However, these times may vary with environmental or climatic conditions**

This material and its' components are moisture sensitive. The product should be kept covered at all times after mixing and during application to prevent contamination and prevent moisture absorption.



**Curing**

Dry time @ 21°C / 70°F ambient air cure  
 Tack free: 4-6 Hours  
 Hard Cure: 24 hours  
 Full Cure: 3-5 days  
 Immersion: Ideally after 5 days but not before 48 hours



**Colors & Finishes**

White, Clear and a full range of colors are available including metallic and pearlescent finishes.  
  
 High Gloss - >90 / 60°  
 Semi-Gloss - 50-60 / 60°



**Surface Preparation**

Applicable substrates for 51PC151™ include ferrous metal, galvanized metal, aluminum, fiberglass, carbon fiber, concrete and wood. Good surface preparation and cleaning of all substrates to be coated is essential for optimum performance of the coating system.

21st Century Coatings (Canada) Ltd.'s series of fluorinated urethane coatings should be applied over a properly prepared primer system.



**Coverage**

**51PC151™ exhibits excellent opacity and coverage when spray applied. If applying colors by means other than spray, test opacity over a small section to ensure adequate coverage prior to general application.**

Solids content (+/- 2%)	60% by volume - White 50% by volume - Clear
Number of Coats	2-3 coats at 50 microns / 2 mils DFT - White
Coverage (theoretical)	19.66 m <sup>2</sup> per litre @ 25 microns / 1 mil DFT - White 963 ft <sup>2</sup> per gallon @ 25 microns / 1 mil DFT - White 16.39 m <sup>2</sup> per litre @ 25 micron / 1 mil DFT - Clear 803 ft <sup>2</sup> per gallon @ 25 microns / 1 mil DFT - Clear



**Storage & Handling**

Hazardous Goods:	Paint, Flammable Liquid, UN1263 Class III Hazchem 3YE
Shipping Information:	8.30 kg/18.25 lbs. per gallon unit including container - White 6.76 kg/14.9 lbs. per gallon unit including container - Clear
VOC content:	335 grams per liter / 2.8 lbs. per gallon - White 419 grams per liter / 3.5 lbs. per gallon - Clear
Flash Point (Seta Flash):	34°C / 93°F

Storage - FPU® coatings must be stored and handled in compliance with all current local regulations applying to flammable, or highly flammable liquids. Store in cool, dry, protected storage, well ventilated, between 5°C-35°C / 40°F-95°F and out of direct sunlight, moisture or rain. Maintain unmixed material in sealed containers at all times.

Shelf Life - FPU® has a minimum shelf life of 12 months from the date of manufacture if stored as indicated above, unopened in sealed containers. Ensure both components are consistent in appearance and thickness after stirring, and ensure that the activator (Part B) is clear and transparent before mixing the components together.

**Do not use activator that is not visually clear.**

