



TECHNICAL DATA SHEET #205

**PDC® F-1083's' IMC eccs®**  
**WATER BASED POLYURETHANE In Mold Foam Coating**  
**FOR INDUSTRIAL USE ONLY**

**DESCRIPTION:**

**F-1083's' is a flexible, self x-linking, high performance, high strength, fast set water base polyurethane used for IMC [in mold coating] or PMC [post mold coating] as a finish coat over an IMC or directly on other types of foam such as EVA, PVC, polystyrene or minicell.**

Applications include athletic padding, medical pads, seating, automotive components, polypropylene buoys, polystyrene dock floatation blocks, etc.... F-1083's' is also a high solids, very low V.O.C. material, which makes it an Emission Control Coating System, eccs®.

F-1083's' performance can be increased more quickly using 130 °F for 15 minutes to accelerate the x-linking process.

**OTHER FEATURES INCLUDE:**

Intended for use in molds starting temps 90 °F

Water base, easy clean up.

One component-self x-linking

Custom Color Matching

**SPECIFICATIONS:**

Solids (wt): 37-39%

Temperature use range: 0°F to 120°F

Tear resistance: ASTM 1004 .70

Block resistant: 4hr @ 120°F

Coverage: 120 sq. ft. per gal at 5 mils

Tensile: (ASTM-D 412) 3680 psi

Elongation: (ASTM-D 412) 825%

Freeze Thaw stability: Excellent

Shelf life: 1+ year at 77°F unopened container

Finish: semi-gloss

**CHEMICAL RESISTANCE:** In House Test Results [ASTM D-1308]

Ketone:	poor	Aromatics:	fair
Aliphatics:	good	Alcohols:	good
Acids:	good		

**ALTERNATIVE PRODUCTS:**

F-851's'

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## **SURFACE PREPARATION:**

All surfaces to be coated must be free of any oils, dust, mold release or loose foam particles.

## **USE ADEQUATE VENTILATION. GENTLY MIX BEFORE EACH USE.**

### **SPRAYING:**

**IMC** [in mold coating]: Make sure tool/ mold is clean and free of mold release unless release has been tested and approved for suitability. Spray apply light even coat making sure to cover all surfaces evenly and completely. Allow coating to tack before adding foam mixture. The use of heated tool/ molds, external heat and air movement is recommended to speed and ensure coating is tacky as quickly as possible. Allow adequate time for foam mixture to complete cycle and for coating to set up. Remove from tool/ mold carefully. Coated part should remove easily without damage to coating skin. If coating sticks to tool/ mold, allow for longer tack time or speed drying process. If difficulty persists, contact Technical Support for assistance.

**PMC** [post mold coating] or applied directly to other foams:

**Tack coat:** Apply light, overlapping coats, holding gun 12"-24" from surface, using an 8"-12" pattern. Allow adequate dry time before applying Finish coat.

**Finish coat:** Apply wet overlapping coats to desired film thickness. Multiple coats can be applied. Allow adequate dry time between coats or handling.

### **Pressure Pot recommendations:**

Binks® model 2100 gun or equivalent

Nozzle: 63 PB

Cap: 63 PB or 66 SD for heavier applications

Needle: 663A

Material: 20 psi

Atomization: 10-25 psi

Dilution: not recommended

Clean up: immediately with water – if allowed to dry, use Acetone or M.E.K.

**Airless or air assisted airless equipment may be used.** Dilution is not suggested. Gently mix before spraying. Apply wet, overlapping coats, holding gun 12"-24" from surface, using 6"-12" pattern. Allow to completely dry before recoating or turning item over.

Tip size: .011-.026

Pressure: as needed

Dilution: not recommended

Clean up: immediately with water – if allowed to dry, use Acetone or M.E.K.

### **HINTS:**

A dry film thickness of 3-5 mils should be used on all items; 6-8 mils on high wear items. Allow at least an overnight dry before stacking or storing coated items unless you've accelerated drying with heat. After allowing to air dry for 30 minutes, a recommended heat for drying is 100°F-150°F with moving air. Always use proper ventilation and protection.