Flexcon® PharmCal® CryoFlex™ 070806

Engineered Material for Extreme Storage Conditions - Liquid Nitrogen

FLX070806 | Part #: PPX-BD79-84GYS/17

Benefits

- Topcoat allows for smudge proof and abrasion resistant thermal transfer printing
- Engineered product can withstand temperatures as low as -320.8 o F (-196 o C), making it suitable for use in liquid nitrogen at its boiling point
- Adhesive is engineered to survive extreme temperature cycling including exposure to liquid nitrogen
- Helps to support sustainability efforts and provides the same performance level as a standard polyester liner
- Overall thinner product construction yields more labels per same diameter roll yielding less changeover

Features

- Topcoated 1.0 mil clear matte polypropylene
- Printable via resin & wax/resin thermal transfer; UV & solvent screen; UV, solvent & water flexo; laser (toner); and narrow-format UV inkjet
- Permanent high-tack cold temperature adhesive design for application to glass and plastic tubes and vials
- 1.2 mil polyester release liner manufactured from up to 30% PCW content
- Release liner provides a good diecutting base and allows for high-speed dispensing

Additional Details

- Product complies with 21 CFR 175.105, REACH, and RoHS/WEE
- No raw component substitutions without six-month advance change notification
- Compatible sterilization methods
- Gamma Sterilization (maximum dose~20kGy)
- ETO Sterilization (maximum concentration~400 mg/L)
- Dry heat (recommended 70 o F for label itself)
- Autoclave (recommended only after applying the labels to vials)

Note: For optimum performance in cryogenic environments, die cut the labels so that the longer dimension is parallel with the machine direction (MD) of the material.

Technical Data

Physical Properties

Thickness (Mils [microns])	Mils	Microns
Total Product	3.25	
Film	1, +/- 10%	25, +/- 10%
Adhesive	0.6-0.7, +/- 0.1	15-18, +/- 3
Liner	1.2, +/- 10%	30, +/- 10%

Test Method:

Adhesion Properties

Ultimate Peel from	Average Oz/In	(N/m)
Stainless Steel	65	715
Acrylic	97	1067
Glass	45	495
Polypropylene	21	231
Polyethylene	16	176

Test Method: ASTM D 903 Modified

Additional Properties	Value	Test Method
Expected Shear (hours)	<0.5	ASTM D 3654 Method A
Tack (g)	690	ASTM D 2979
Expected Exterior Life	Indoor use only	
Additional Information		
Service Temperature	-320.8°F to 275°F (-196°C to 135°C) on plastic tubes, PP vials, EVA bags, and paper boxes	
Minimum Application Temperature	-320.8°F (-196°C)	
Storage Stability	Two years when stored at 70°F (21°C) and 50% relative humidity	

Product Performance and Suitability

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