

P2025

CRYOGENIC LABEL



Description

p2025 85µ matt white print receptive polyester offers excellent low temperature cryogenic performance combined with good humidity and water resistance. Designed to be printed via LASSIE2 Plus / ColorCube ink-jet printer and pigment ink combination. The material enables the creation of four colour variable data labels for improved identification of cryogenic storage vessels vs. conventional single colour thermal transfer methods. p2025 is coated with PFC high performance acrylic adhesive which exhibits high initial tack, good adhesion to both high and low surface energy substrates. PFC adhesive is suitable for exposure to liquid nitrogen.

Typical applications

On demand variable information labels for cryogenic identification of plastic and glass vessels for the preservation of blood, reproductive cells and other biological materials.

Typical industry sectors

Laboratory, medical, healthcare, pharmaceutical and electrical.

Facestock

85µ matt white print receptive polyester engineered to offer optimum performance when printed with LASSIE2 Plus / ColorCube printers using DURABrite Ultra or UltraChrome DL pigment-based inks. The surface coating enables high resolution print quality combined with superior water resistance.

Adhesive

PFC high performance permanent acrylic adhesive. PFC exhibits high initial tack and adhesion to a wide range of substrates, including many plastics. PFC adhesive offers very good adhesion and low temperature shear performance when applied to both glass and treated PP vials.

Liner

71gsm white super-calendared glassine release liner. The white glassine liner offers superior die-cutting performance.

General characteristics

Properties	Typical values		Unit of measure	Test method
Physical	Facestock		85µ ± 10%	FTM 12
	Adhesive		25gsm ± 10%	
	Liner		71µ ± 10%	
Peel adhesion	Initial	24 hours	N/25mm @ 23°C, 50% RH	FTM 1
Stainless steel	11.9	12.0		
Glass	12.7	13.0		
Shear resistance	> 600		Seconds @ 40°C	FTM 8
Min, application temperature	+4°C		Celsius	
Service temperature range	-196°C* to +100°C		Celsius	

* Service temperature range can be affected by application surface and curvature.

Environmental performance

Product code	p2025		
Film appearance	Matt white		
Variable print method	Water based ink-jet		
Results	Glass tube	-196°C	Pass
		-80°C	Pass
		-40°C	Pass
		-20°C	Pass
		+4°C	Pass
		Control	Pass
	PP tube	-196°C	Pass
		-80°C	Pass
		-40°C	Pass
		-20°C	Pass
		+4°C	Pass
		Control	Pass

Label samples applied to glass and PP tubes at 23°C / 50%RH and then exposed to below conditions. Pass indicates no label peeling or removal after exposure to test conditions. Application surface: glass tubes (10mmØ) / PP microtubes (10mmØ). Label size: 22mm x 25mm (label covers 70% of the circumference of the tubes).

Conditions:

- Immersion in Liquid N2 for 8 hours at -196°C • Dry ice test at -80°C for 1 week • Deep freezer test at -40°C for 1 week
- Freezer test at -20°C for 1 week • Refrigerator test at 4°C for 1 week • Control at 23°C for 1 week

p2025 will not adhere to wet surfaces. p2025 will not adhere to some slip coatings applied to glass vials.

Compliances



RoHS2 compliance: This product is in compliance with European parliament directive (EU) 2015/863 which restricts the use of certain hazardous substances in electrical and electronic equipment.

Disclaimer

Values shown in this document are averages only. For legal reasons, we emphasize that the information on this data is available as is and that Altec gives no guarantees with respect to the accuracy and completeness nor with respect to interpretations made on the basis of this information.