SCIENTIFIC INTEGRATED SOLUTIONS TECHNOLOGY

Seal Material Specification Sheet

IST Scientific
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QuickSeal Foil PCR Ultra™ IST-129 Adhesive, Pierceable, Peelable, Barrier Foil for PCR

Product Description

An adhesive, foil barrier film which is suited for PCR use. Manufactured from soft aluminium foil with acrylic adhesive. The seal has solvent resistance and can be removed, leaving behind no adhesive residue.

Physical Properties

Secures well at room temperature while conforming well to irregular surfaces and is suitable for use protecting materials quickly or at high temperature (180°C). Temperature Range: -40°C to +120°C.

Visual Description

Thin, Metallic, Reflective, Paper Liner.

Application

PCR and sample storage.

Test Procedures:

Mass Loss	Confirming the materials ability to resist high temperatures	**Results:**	**PASS**

Details: Mass loss of solution evaluated after 30 cycles of 3 step PCR Programme. **Equipment:** ABI Thermocycler, Precision Balance.

Pierce	Measuring the force required to push a standardised needle through the material via compression measuring equipment.	**Results:**	**PASS**

Details 5 tests run using a standardised needle, ensuring that less than 10N is required to pierce the surface & access the wells. **Equipment** Instron 3343 Tensometer.

Optical	Determining the materials optical clarity by measuring the transmission of emissive dye through the material	**Results:**	**N/A**

Details Record the light transmission of a sealed microplate using a Flurophore dye stock solution and a microplate reader. **Equipment** BMG Labtech - FluroStar.

Peel	Measuring the materials permanence of adhesion & its ability to be removed, via extension measuring equipment.	**Results:**	**PASS**

Details Cohesive Failure, Adhesive Transfer, Material tear & Successful Peel are measured & recorded after a 180° peel test. **Equipment** Instron 3343 Tensometer.

Low Temp. Seal Test	Confirming the materials ability to resist low temperatures	**Results:**	**PASS**

Details: Microplates are sealed at specified low temperatures & subjected to a series of tests to substantiate seal integrity. **Equipment:** Laboratory Cold storage unit.

Solvent	Evaluating the materials resistance to solvents (DMSO used as an aggressive standard)	**Results:**	**PASS**

Details Sealed plate is subjected to a high concentration of DMSO for a time period at low temperatures after which seal damage & volume loss are determined. **Equipment** Laboratory Cold storage unit, DMSO solution.

Recommended Storage Conditions:

Store in a cool place. Avoid direct exposure to sunlight.

It is recommended to use the seals within the expiry date shown on the label.

Three years when stored at 21°C (70°F), 50% relative humidity, out of direct sunlight, in original packaging.

Plate Types:

Polypropylene (PP), Polyethylene (PE), Polystyrene (PS), Cyclo Olefin Copolymer (COC)

Recommended Sealing Equipment:

KAPS 500/Sealit 100/Manual Roller IST-202-102HR

Ordering:

Part Number	Format	Presentation	
IST-129-080LR	Std LabRoll™	1 Roll	150M × 80mm
IST-129-080SR	Sterile LabRoll™	1 Roll	150M × 80mm
IST-129-080LS	Std LabSheet™	100 Sheets	135mm × 80mm
IST-129-080SS	Sterile LabSheet™	100 Sheets	135mm × 80mm
IST-129-080TS	Trial LabSheet™	5 Sheets	135mm × 80mm