AlphaCare®
Film Recommendations

AlphaCare® Service and Spares

Alpha Technologies provides original equipment manufacturer (OEM) parts for all Monsanto, Flexsys, Tech Pro, and Alpha Technologies instruments.

Not all film is created equal, discount and poor-quality film will result in the film tearing, melting, and slippage, which causes incorrect results. With over 25 different film options to choose, Alpha Technologies has film for every testing condition. All Alpha Technologies film is tested and approved by Alpha's applications engineering department, ensuring results are reliable, repeatable, and reproduceable.

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ALPHATECHNOLOGIES

AlphaCare® Film Recommendations

Performance

Raw rubber and rubber compounds can release a variety of contaminants when tested at elevated processing or curing temperatures. These materials can contaminate the dies and produce a slippery surface or even corrode the dies. These issues can cause more data variation or artificial trends in the data. In addition, the elastomer die seals can wear prematurely. Barrier films can protect the dies and seals and significantly reduce the cost of instrument operation and minimize the effect on the test results.

Film Recommendations

Film Recommendations are based on the following test conditions:

1. Maximum test temperature
2. Maximum strain
3. Test time at the test temperature
4. Manual sample loading versus automation sample loading

Nylon films are rated up to 200°C. Polyester films are rated to 220°C but between 200°C and 220°C the test time should be limited to 2 min or less.

Premier® MV and MV 2000			
Application	**Max Temp, °C**	**Upper film p/n**	**Lower film p/n**
Viscosity	200	F0310-S	F0310-H
Scorch	200	F0310-S	F0310-H
Alternative option	200	F0141	F0141-H

Premier® MDR with Smart Seal™ *Maximum temperature of Premier® MDR is 230°			
Application	**Max Temp, °C**	**Upper film p/n**	**Lower film p/n**
Cure	350*	F0242	F0242
Cure & Dynamic Properties During Cure	350*	F0242	F0242
Alternate option for Cure & Dynamic	350*/200	F0242	F5058

Premier™ MDR, Premier™ MDR-X, MDR 2000 and MDR-C Note: F0143 can substitute for F0224 and F0143-S can substitute for F0224			
Application	**Max Temp, °C**	**Upper film part number**	**Lower film part number**
Cure	200	F0141	F0141
Cure & Dynamic Properties During Cure (Tan δ)	200	F0224-S	F0224-S
Automation of Cure Tests	200	F5058	F5058
Automation of Cure & Dynamic Properties (Tan δ)	230	F0224	F0224
Premier MDR-X	200	F0435	F0435

Premier™ RPA, Premier™ RPA Enhanced, Premier™ RPA-X, RPA2000, and Premier MDR+ Note: F0143 can substitute for F0224 and F0143-S can substitute for F0224-S			
Application	**Max Temp, °C**	**Upper film part number**	**Lower film part number**
Viscosity	200	F0224-S	F0224-S
Cure	200	F0141	F0141
Cure & Dynamic Properties	200	F0224-S	F0224-S
Cure & After Cure	200	F0224-S	F0224-S
Automation Cure	200	F0224	F0224
Automation Cure & Dynamic Properties	200	F0224	F0224
Automation Cure & After Cure	200	F0224	F0224
High Temperature (200°C to 350°C)	350	F0242	F0242
Prevent Tearing when testing strains over 100%	200	F0224	F0201-R
High Temperature and Strains over 100%	350	F0242	F0242
4 Roll film option to reduce slippage	200	F5058 / F0143	F5058 / F0143
Premier RPA-X	200	F0436	F0436

Premier® ESR, ATD and APA Note: F0242 is the standard recommended film F0224 is sold as a roll and F0224-S is sold as sheets			
Application	**Max Temp, °C**	**Upper film part number**	**Lower film part number**
Low Viscosity Thermosetting Resin (<1 Deg Arc or 14% Strain	200	F0224-S	F0224-S
Low Viscosity Thermosetting Resin at High Strain (>1 degree or 14%)	200	F0224-S	F0201-S
Low Viscosity Thermosetting Resin at High Temp	350	F0242	F0242
Prepreg (woven fiber with thermoset resin)	200	F0224-S	F0201-S
Prepreg (woven fiber with thermoset resin)	350	F0242	F0242
Thermoplastics	200	F0224-S	F0201-S
Thermoplastics (high temperature)	350	F0242	F0242
SMC & BMC	220	F0224-S	F0201-S
SMC & BMC (high temperature)	350	F0242	F0242
Rubber (also see RPA)	200	F0224-S	F0224-S

Premier® RPA+ Note: For Premier® RPA+, total thickness of all film will be entered into the touch screen settings			
Application	**Max Temp, °C**	**Upper film part number**	**Lower film part number**
Standard film for all testing	200	F0224-S	F0201-S
Standard film for all testing using automation	200	F0224	F0201-R

Film Descriptions

Part Number	Description
F0141	23um Melinex-S Polyester 130mm square 1000 sheets with separator sheets
F0141-3000	23um Melinex-S Polyester 100mm square 3000 sheets with no separator sheets
F0141-H	23um Melinex-S Polyester 130mm square 1000 sheets with 11mm center hole
F0143	1Mil Nylon Dartek 600m roll
F0143-S	1Mil Nylon Dartek 130mm square 1000 sheets
F0201-S	2Mil Nylon Dartek 130mm square 1000 sheets
F0201-R	2Mil Nylon Dartek 300m roll
F0214	23um Melinex-S Polyester 65mm square 2000 sheets
F0215	24um Generic PET Polyester 600m roll
F0224	1Mil Nylon Dartek High Strain 600m roll
F0224-S	1Mil Nylon Dartek High Strain 130mm square 2000 sheets
F0242	1Mil Polyimide 500m roll
F0310-H	12um PET Polyester 130mm square with 11mm center hole 1200 sheets
F0310-S	12um PET Polyester 130mm square 1200 sheets
F0310-R	12um PET Polyester 1200m roll
F0311-S	24um PET Polyester 130mm square 1000 sheets
F0311-R	24um PET Polyester 600m roll
F0324	23um Melinex-S Polyester 1200m roll
F0327	1Mil Nylon Dartek 80mm wide 610m roll
F0435	23um Melinex-S Polyester 130mm wide 1100m large roll (X-Series and Series 2000 only)
F0436	1Mil Nylon Dartek 127mm wide 1100m large roll (X-series and Series 2000 only)
F5058	23um Melinex-S Polyester 130mm wide 600m roll
F5058-180	23um Melinex-S Polyester 180mm wide 600m roll
F5058-100W	23um Melinex-S Polyester 100mm wide 600m roll

Conversion Table

0.5 Mil = 13 um
1 Mil = 25 um
2 Mil = 51 um