

SARLINK® X4765-40 BLK is a highly engineered Thermoplastic Elastomer for use in demanding applications. SARLINK® X4765-40 BLK is a black, low hardness UV stable grade possessing superior compression set, chemical resistance and high temperature performance. This product is a high flow material designed for injection molding applications that require superior flow properties.

Typical properties*	Test method	S.I.		U.S.	
		Typical value	Units	Typical value	Units
Hardness Shore A Injection molded sample Extruded sample	ASTM D-2240, 5 sec. Delay 5 sec. Delay	64	--	64	--
		62	--	62	--
Specific Gravity	ASTM D-792	0.92	--	0.92	--
Stress/Strain properties <u>Flow direction</u> Tensile strength Modulus at 100% Elongation at break <u>Cross direction</u> Tensile strength Modulus at 100% Elongation at break	ASTM D-412, Die C				
		4.9	MPa	711	Psi
		2.3	MPa	334	Psi
		417	%	417	%
Tear Strength <u>Cross direction</u> Unnicked	ASTM D-624, Die C	23	kN/m	131	Pli
Compression set 22h/23°C 22h/70°C 70h/125°C	ASTM D-395, Method B	20	%	20	%
		35	%	35	%
		46	%	46	%
Hot air aging <u>168h/150°C, Cross Direction</u> Change in hardness Retention tensile strength Retention modulus at 100% Retention elongation at break <u>1000h/135°C, Cross Direction</u> Change in hardness Retention tensile strength Retention modulus at 100% Retention elongation at break	ASTM D-573				
		1	--	1	--
		84	%	84	%
		98	%	98	%
		83	%	83	%
		3	--	3	--
		88	%	88	%
		99	%	99	%
		88	%	88	%
Volume Swell 70h/125°C Oil #3	ASTM D-471	79	%	79	%
Rheology <u>Apparent Shear Viscosity</u> @ 206 1/s, 200°C	ASTM D-3835	231	Pa.s	231	Pa.s

* Tests are conducted on injection molded plaques unless indicated otherwise.

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SARLINK® X4765-40 BLK is a polypropylene based elastomer, which can be processed on conventional thermoplastic equipment for injection molding. This product has a wide processing window in most applications. Melt temperatures from 360°F to 430°F can be used. Drying is recommended and any time the material is used from an unsealed package. Dry three (3) hours at 180°F. Drying is best accomplished in a desiccant dryer.

INJECTION MOULDING CONDITIONS		
Melt temperature		360-450°F
Barrel Temperatures	Rear Middle Front Nozzle	350-420°F 350-420°F 350-420°F 370-430°F
Mould temperature		50-150°F
Screw Speed		100-200 RPM
Back Pressure		10-150 psi
Screw	General Purpose 20:1 L/D ratio	

PURGING

SARLINK® X4765-40 BLK has excellent melt stability. Empty the barrel for idle periods of thirty (30) minutes or longer. Purge thoroughly before and after use of this product with polyethylene or polypropylene.

RECYCLING/REGRIND

This product can be reprocessed. Physical properties are generally not degraded. Dry regrind prior to reprocessing. Drying is best accomplished in a desiccant dryer.

BONDING/ASSEMBLY

Thermal bonding techniques can be used to form high strength bonds. Adhesive bonding can be achieved with specialized adhesives. Bond strength is limited due to the polypropylene base of this material.

STORAGE & HANDLING

SARLINK® X4765-40 BLK is available in 55 lb. foil lined bags (up to 2,200 lbs. per pallet) or 1,100 lb. polyethylene lined gaylords. It has a storage life at normal temperatures of several years. Please refer to the Material Safety Data Sheet for this grade prior to first time handling.