

KYNAR FLEX®

3121-50

[Kynar Flex®](#) resins are fluorinated thermoplastic copolymers.

Kynar Flex® 3121-50 is a pelletized flexible, semi-crystalline VF2 based copolymer. It can be molded or extruded and has a useful temperature range from -40°C - 150°C. Kynar Flex® 3120-50 has a UL RTI of 150°C. This product is NSF/ANSI/CAN 61 certified.

Kynar Flex® 3120-50 can be used in compounding for cross-linkable wire and cable as well as both wire applications requiring low temperature flexibility and high temperature resistance.

Kynar Flex® 3120-50 also finds use as a polymer processing aid (PPA) for polyolefins. The use of Kynar Flex® 3120-50 or Kynar Flex 3121-50 at 200 -1000 ppm levels reduces extruder pressure, improves surface finish, reduces die build up, and improves gauge control.

[UL Yellow Card](#)

特性	値	単位	テスト基準
レオロジー特性			
メルトボリュームレイト	0.5	cm ³ /10min	ISO 1133
温度	230	°C	-
	446	°F	-
荷重	5	kg	-
	11	lb	-
メルトフローレイト	2.5 - 7.5	g/10min	ASTM D1238
温度	230	°C	-
荷重	12.5	kg	-
熔融粘度, 230°C, 100 s ⁻¹	20 - 26	kPoise	ASTM D3835
機械的特性			
引張弾性率	700	MPa	ISO 527-1/-2
	102000	psi	
引張弾性率, 73 °F	689 - 1170	MPa	ASTM D638
	100000 - 170000	psi	
降伏応力	27	MPa	ISO 527-1/-2
	3920	psi	
降伏応力, 73 °F	24.1 - 34.5	MPa	ASTM D638
	3500 - 5000	psi	
降伏ひずみ	15	%	ISO 527-1/-2
降伏点伸び, 73 °F	10 - 20	%	ASTM D638
破壊呼びひずみ	>50	%	ISO 527-1/-2
破壊応力, 73 °F	34.5 - 48.3	MPa	ASTM D638
	5000 - 7000	psi	

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3121-50

破断伸び, 73 °F	300 - 500	%	ASTM D638
Taber 耐摩耗性, CS 17 1000g:pad	16 - 19	mg/1000 cycles	ASTM-G195-13A
ショア硬さ, D, 73 °F	65 - 70	-	ASTM D2240
曲げ弾性率, 73 °F	621 - 827 90000 - 120000	MPa psi	ASTM D790
5%伸び時の曲げ強度, 73 °F	20.7 - 34.5 3000 - 5000	MPa psi	ASTM D790
圧縮強度, 73 °F	34.5 - 48.3 5000 - 7000	MPa psi	ASTM D695
衝撃試験, 73 °F	未破壊	kJ/m	ASTM D256
ノッチ付き衝撃強さ, 73 °F	未破壊	kJ/m	ASTM D256
摩擦係数, 静力学対鋼, 73°F	0.31	-	ASTM D1894
摩擦係数, 動的対鋼, 73°F	0.3	-	ASTM D1894
熱的特性			
溶融温度, 10°C/min	165	°C	ISO 11357-1/-3
溶融温度	161 - 168	°C	ASTM D3418
ガラス転移点, 10°C/min	-40	°C	ISO 11357-1/-2
ガラス転移温度 (Tg)	-41.1 - -39.4 -42 - -39	°C °F	ASTM D7028
温度定格	150 302	°C °F	UL RTI
荷重たわみ温度, 1.80 MPa	50 122	°C °F	ISO 75-1/-2
荷重たわみ温度, 264 Psi, 248 °F/hr	43.3 - 54.4 110 - 130	°C °F	ASTM D648
荷重たわみ温度, 66 Psi, 248 °F/hr	54.4 - 76.7 130 - 170	°C °F	ASTM D648
線膨張係数, 73 °F	12.6 - 18.5 7 - 10.3	10E-5/ °C 10E-5/ °F	ASTM D696
1.5mm厚さでの燃焼性	V-0	class	IEC 60695-11-10
試験片の厚さ	1.5 0.0591	mm in	-
Yellow Card 可用	はい	-	-
厚さhでの燃焼性	V-0	class	IEC 60695-11-10

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3121-50

試験片の厚さ	1.0	mm	-
	0.0394	in	
Yellow Card 可用	はい	-	-
厚さhでの燃焼性 5V	5VA	class	IEC 60695-11-20
試験片の厚さ	1.0	mm	-
	0.0394	in	
酸素指数	43	%	ISO 4589-1/-2
酸素指数	42	%	ASTM D2863
熱伝導率	0.144 - 0.18	W/(m K)	ASTM D433
	1 - 1.25	BTU in	
比熱	745 - 958	J/(kg K)	DSC
	0.28 - 0.36	BTU/(lb °F)	
空気中の熱分解	375	°C	1% wt. loss
	707	°F	
窒素中での熱分解	410	°C	1% wt. loss
	770	°F	
相対熱指数, 機械的	150	°C	UL 746B
	302	°F	
相対熱指数, 電気	150	°C	UL 746B
	302	°F	
電気的特性.			
比誘電率, 1 kHz	3.2 - 10.2	-	ASTM D150
誘電正接, 100 kHz	0.02 - 0.19	-	ASTM D150
表面抵抗率, 73 °F	5.3E11 - 5.5E11	Ohm per square	ASTM D257
耐電圧, 73°F	1.3 - 1.5	kV/mil	ASTM D149
その他の特性.			
吸水率, 23°C, immersion, equilibrium	0.03	%	ISO 62
吸水率	0.03 - 0.05	%	ASTM D570
密度	1780	kg/m³	ISO 1183
	1.78	g/cm³	
比重, 73 °F	1.75 - 1.77	-	ASTM D792
光学特性			
Refractive Index @ sodium D line	1.41	-	ASTM D542

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領域別の利用可能性 北アメリカ, ヨーロッパ, アジア/太平洋地域, 南・中央アメリカ, 近東/アフリカ	Headquarters: Arkema France 420 rue d'Estienne d'Orves 92705 Colombes Cedex France T +33 (0)1 49 00 80 80 hpp.arkema.com Arkema Inc. – High Performance Polymers 900 First Avenue King of Prussia, PA 19406 Tel.: +1 610 205 7000 hpp.arkema.com
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