

## Polikim EFALON® K-25 PTFE, 25% Carbon Filled

Category : Polymer , Thermoplastic , Fluoropolymer , PTFE , Polytetrafluoroethylene (PTFE), Carbon Fiber Filled

### Material Notes:

K25 and K35 have less thermal expansion, higher wear resistance, less deformation under load properties compared to virgin Eفالون® (PTFE). Applications: Bearings, piston rings, gaskets, seal rings. Information provided by Polikim Polimer.

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_Polikim-EFALON-K-25-PTFE-25-Carbon-Filled.php](http://www.lookpolymers.com/polymer_Polikim-EFALON-K-25-PTFE-25-Carbon-Filled.php)

Physical Properties	Metric	English	Comments
Density	2.05 - 2.15 g/cc	0.0741 - 0.0777 lb/in <sup>3</sup>	ASTM D792
Deformation	0.40 - 2.1 %	0.40 - 2.1 %	permanent; ASTM D621
	@Temperature 23.0 °C, Time 86400 sec, Pressure 13.7 MPa	@Temperature 73.4 °F, Time 24.0 hour, Pressure 1990 psi	
	1.8 - 2.0 %	1.8 - 2.0 %	total
	@Temperature 150 °C, Time 86400 sec, Pressure 0.981 MPa	@Temperature 302 °F, Time 24.0 hour, Pressure 142 psi	
	2.9 - 4.8 %	2.9 - 4.8 %	total; ASTM D621
	@Temperature 23.0 °C, Time 86400 sec, Pressure 13.7 MPa	@Temperature 73.4 °F, Time 24.0 hour, Pressure 1990 psi	
	8.0 - 9.0 %	8.0 - 9.0 %	total
	@Temperature 150 °C, Time 86400 sec, Pressure 4.90 MPa	@Temperature 302 °F, Time 24.0 hour, Pressure 711 psi	

Mechanical Properties	Metric	English	Comments
Hardness, Shore D	65 - 68	65 - 68	ASTM D2240
Tensile Strength, Ultimate	10.8 - 20.6 MPa	1560 - 2990 psi	ASTM D638
Elongation at Break	70 - 110 %	70 - 110 %	ASTM D638
Compressive Strength	8.34 - 10.8 MPa	1210 - 1560 psi	1% Deformation; ASTM D695
Izod Impact, Notched (ISO)	8.50 - 9.00 kJ/m <sup>2</sup>	4.04 - 4.28 ft-lb/in <sup>2</sup>	ASTM D256
Coefficient of Friction	0.12	0.12	
Coefficient of Friction, Static	0.11	0.11	
Limiting Pressure Velocity	0.00360 - 0.00376 MPa-m/sec	103 - 107 psi-ft/min	3 m/min

Mechanical Properties	Metric	English	Comments
	0.0049 - 0.00654 MPa-m/sec	117 - 187 psi-ft/min	30 m/min
	0.00490 - 0.00736 MPa-m/sec	140 - 210 psi-ft/min	300 m/min

Thermal Properties	Metric	English	Comments
CTE, linear	95.0 - 100 $\mu\text{m}/\text{m}\cdot\text{°C}$	52.8 - 55.6 $\mu\text{in}/\text{in}\cdot\text{°F}$	ASTM D696
	@Temperature 25.0 - 100 $\text{°C}$	@Temperature 77.0 - 212 $\text{°F}$	
	110 - 120 $\mu\text{m}/\text{m}\cdot\text{°C}$	61.1 - 66.7 $\mu\text{in}/\text{in}\cdot\text{°F}$	
	@Temperature 25.0 - 200 $\text{°C}$	@Temperature 77.0 - 392 $\text{°F}$	ASTM D696
	130 - 150 $\mu\text{m}/\text{m}\cdot\text{°C}$	72.2 - 83.3 $\mu\text{in}/\text{in}\cdot\text{°F}$	ASTM D696
	@Temperature 25.0 - 300 $\text{°C}$	@Temperature 77.0 - 572 $\text{°F}$	
Thermal Conductivity	0.628 - 0.711 W/m-K	4.35 - 4.93 BTU-in/hr-ft <sup>2</sup> - $\text{°F}$	
Maximum Service Temperature, Air	270 $\text{°C}$	518 $\text{°F}$	continuous
Minimum Service Temperature, Air	-260 $\text{°C}$	-436 $\text{°F}$	

Electrical Properties	Metric	English	Comments
Volume Resistivity	$\geq 1000$ ohm-cm	$\geq 1000$ ohm-cm	ASTM D257
Surface Resistance	$\geq 1.00\text{e}+7$ ohm	$\geq 1.00\text{e}+7$ ohm	50% rel. humidity; ASTM D257

## Contact Songhan Plastic Technology Co.,Ltd.

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