

## LG Chemical LUCEL FW-7005 Friction and Wear Resistant POM, Oil filled

Category: Polymer, Thermoplastic, Acetal (POM)

## **Material Notes:**

LUCEL semi-crystalline acetal copolymer resins are produced by gas phase polymerization. LUCEL resins can be widely accepted as the replacement of thermosets, aluminum and zinc die-casts or other metals. Characteristics: No pungent smell in processing Excellent thermal stability based on structure of Acetal CopolymerWell balanced mechanical properties and resistance to creepHighest fatigue resistance to organic and chemical and hot water Excellent friction and abrasion resistance High dimensional stability and good moldability Easy part design and application over a broad range of environmental conditions Applications: Automotive: Water valve parts, radiator drain cock, carburetor float, exhaust gas valve, diaphragm valve, door lock, winker switch, wiper gear and pivot bearing, speedometer gear, window glass bottom channel, safety belt, retractor parts, door handle, lumbar support handle, sun visor bracket, collapsible room mirror stay, fender mirror body, waster pump nozzle Electrical and Electronic: Switch, coil bobbin, micrometer base, tuner parts, control switch parts, dial mechanism, cassette tape reel, power transmission gear, shaft nearing, bracket, fan motor housing, spring frame of headphone, arc shooter, toner agitating rotor, printer mechanism, gas meter component Industrial Parts and Others: Spring, bearing, spray guns, power cylinder, watch gear, alarm clock base, hot water pot housing, gear housing, table top chain runner, zipper, partition corner piece curtain runner, blind gear, door runner, office furniture parts, accessories, comb, pressure container Information Provided by LG Chem

Order this product through the following link: http://www.lookpolymers.com/polymer\_LG-Chemical-LUCEL-FW-7005-Friction-and-Wear-Resistant-POM-Oil-filled.php

Physical Properties	Metric	English	Comments
Specific Gravity	1.40 g/cc	1.40 g/cc	ASTM D792
Linear Mold Shrinkage	0.020 - 0.022 cm/cm	0.020 - 0.022 in/in	ASTM D955

Mechanical Properties	Metric	English	Comments
Hardness, Rockwell M	80	80	ASTM D785
Tensile Strength at Break	54.0 MPa	7830 psi	ASTM D638
Elongation at Break	70 %	70 %	ASTM D638
Flexural Strength	78.0 MPa	11300 psi	ASTM D790
Flexural Modulus	2.35 GPa	341 ksi	ASTM D790
Izod Impact, Notched	0.900 J/cm	1.69 ft-lb/in	ASTM D256
	11.0 J/cm	20.6 ft-lb/in	Reverse notched; ASTM D256
Coefficient of Friction, Dynamic	0.10	0.10	ASTM D1894
Coefficient of Friction, Static	0.10	0.10	ASTM D1894
Taber Abrasion, mg/1000 Cycles	12	12	CS 17 Wheel, 1000g; ASTM D1044



Thermal Properties	Metric	English	Comments
Deflection Temperature at 0.46 MPa (66 psi)	155 °C	311 °F	ASTM D648
Deflection Temperature at 1.8 MPa (264 psi)	105 °C	221 °F	ASTM D648

Processing Properties	Metric	English	Comments
Rear Barrel Temperature	160 - 180 °C	320 - 356 °F	
Middle Barrel Temperature	180 - 200 °C	356 - 392 °F	
Front Barrel Temperature	190 - 200 °C	374 - 392 °F	
Nozzle Temperature	190 - 200 °C	374 - 392 °F	
Melt Temperature	190 - 200 °C	374 - 392 °F	
Mold Temperature	60.0 - 100 °C	140 - 212 °F	
Drying Temperature	90.0 - 110 °C	194 - 230 °F	
Dry Time	3 - 6 hour	3 - 6 hour	
Injection Pressure	34.32 - 68.65 MPa	4978 - 9957 psi	Second
	39.2 - 118 MPa	5690 - 17100 psi	First
Back Pressure	0.000 - 3.92 MPa	0.000 - 569 psi	
Screw Speed	50 - 100 rpm	50 - 100 rpm	

## **Contact Songhan Plastic Technology Co.,Ltd.**

Website: www.lookpolymers.com Email: sales@lookpolymers.com

Tel: +86 021-51131842 Mobile: +86 13061808058 Skype: lookpolymers

Address: United North Road 215, Fengxian District, Shanghai City, China