

## **TIMCAL TIMREX® KS5-75TT Primary Synthetic Graphite**

Category: Carbon, Graphite, Other Engineering Material, Additive/Filler for Polymer

## **Material Notes:**

TIMREX Primary Synthetic Graphite is produced in a unique highly controlled graphitization process which assures narrow specifications and unequalled consistent quality due to: monitoring of all production and processing stages, strict final inspection, and clearly defined development processes. TIMREX Primary Synthetic Graphite shows unique properties thanks to the combination of a consistent purity, perfect crystalline structure and well defined texture. Tribological and mechanical properties: Medium toughness Good lubrication properties Advantages and applications: Low friction coefficientLow wear of the counterpart Good transfer-film formationHigh electrical conductivity Suitable for pitch-bonded and resin-bonded brushes Fe-self lubricating engineering parts Fe-friction parts Copper/bronze bearings Copper friction parts copper clutch facings Information provided by TIMCAL

## Order this product through the following link:

http://www.lookpolymers.com/polymer\_TIMCAL-TIMREX-KS5-75TT-Primary-Synthetic-Graphite.php

Physical Properties	Metric	English	Comments
Bulk Density	0.410 g/cc	0.0148 lb/in³	Scott
Particle Size	5.0 μm	5.0 μm	Springback 11.5%, pressure 0.477 t/cc
	20 μm	20 μm	Springback 13%, pressure 0.477 t/cc
	36.8 μm	36.8 µm	d50
	70 µm	70 µm	d90
	62 - 86 µm	62 - 86 µm	d90, Guaranteed
	75 µm	75 µm	Springback 17%, pressure 0.477 t/cc
	550 μm	550 μm	at a density of 2.16 g/cc
	1000 μm	1000 μm	at a density of 2.12 g/cc
Deformation	1.4 %	1.4 %	plastic
	1.4 %	1.4 %	elastic
	2.8 %	2.8 %	plastic + elastic
Ash	0.040 %	0.040 %	Typical
	<= 0.10 %	<= 0.10 %	Guaranteed

Mechanical Properties	Metric	English	Comments
	0.38	0.38	Friction coefficient of sintered Cu-C - brake pads with 10% TIMREX® KS
Coefficient of Friction	@Temperature 850 °C,	@Temperature 1560 °F,	Graphite as a function of the particle size, Sinterdensity: 55% of the



Mechanical Properties	Time 10800 sec Metric	Time 3.00 hour English	theoret density Comments	
Thermal Properties	Metric	English	Comments	
Thermal Conductivity	140 W/m-K	972 BTU-in/hr-ft²-°F		

Electrical Properties	Metric	English	Comments
Electrical Resistivity	1.55 ohm-cm	1.55 ohm-cm	particle size 80 um, pressure 2.5 t/cc
	1.60 ohm-cm	1.60 ohm-cm	particle size 42 um, pressure 2.5 t/cc
	1.80 ohm-cm	1.80 ohm-cm	particle size 15 um, pressure 2.5 t/cc
	2.25 ohm-cm	2.25 ohm-cm	particle size 10 um, pressure 2.5 t/cc

Processing Properties	Metric	English	Comments
Moisture Content	0.20 %	0.20 %	Typical
	<= 0.50 %	<= 0.50 %	Guaranteed

Descriptive Properties	Value	Comments
Crystallite height Lc	>100 nm	
DBP absorption	45 g/100g	(Dibutylphthalate)

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

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