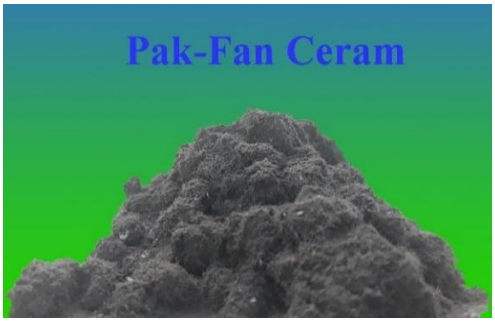
Pak-Fan Composite Sharif Co., Ltd.

PRODUCT TECHNICAL DATA SHEET

PakFanCeram

Brake Friction Compound
PC6020



DESCRIPTION

PC6020 is a ceramic friction composition without any types of ferrous materials. This product is in the form of coarse powder with light silver color. **PC6020** offers brake friction materials with excellent braking performance, silent braking and long service life.

GENERAL FEATURE

PC6020 is a low copper formulation, containing less than 5 wt% copper, with no asbestos fiber, no lead and no any other harmful and prohibited ingredients. This product can be hot-pressed in as-received state with no need to any further pre-processing or pre-mixing.

APPLICATIONS

PC6020 is suggested to be used as composite friction component of disk brake pads for variety of light to medium weight cars.

PROCESSING CONDITIONS

PC6020 has been designed for positive molding using compression machine. However, the friction performance of brake pads produced by **PC6020** is greatly dominated by the compression molding conditions. The table below offers overall conditions for successful compression molding of **PC6020**. However, the accurate molding conditions should be identified carefully according to technical identifications of press molding machine used as well as the shape and type of brake pads to be manufactured. Accordingly, to make the production of brake pads based on **PC6020** much easier, we offer continued technical consultancy to our customers in every steps of brake pads manufacturing.

Processing Conditions	Value	Unit	Method/Condition
Hot press molding			
Applied molding pressure	5-10	MPa	
Molding temperature	125-145	°C	
Molding time	4-8	min	Periodic breathing is required during molding.
Post-curing			Post-curing is not necessarily required.
Post-curing temperature	N.A.	°C	
Post-curing time	N.A.	h	

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FRICTION PROPERTIES*

Property	Value	Unit	Test method
Normal COF**	0.37-0.42		Friction class **F** according to SAE J866/ISIRI 586
Hot COF	0.35-0.4		Friction class **F** according to SAE J866/ISIRI 586
Friction Code	FF		SAE J866/ISIRI 586
Wear Rate ($\times 10^7$)	< 1.5	$g.N^{-1}.m^{-1}$	SAE J661/ISIRI 586

*Frictional and wear properties presented here are applicable for pads manufactured based on Pak-Fan Composite Sharif Co. recommendations. For more details about the molding conditions consult with the company.
** Coefficient of friction

PHYSICAL AND MECHANICAL PROPERTIES*

Property	Value	Unit	Method/Condition
Apparent Density	0.55	$g.cm^{-3}$	
Hardness	< 50	HRR	Hardness measurement is carried out on manufactured pads.
Flexural Modulus	N.A.	MPa	
Compression Modulus	N.A.	MPa	
Thermal Conductivity	N.A.	w/m.K	
Specific Heat	N.A.	kJ/kg.°C	

*Physical and mechanical properties presented here are applicable for pads hot-cured under molding conditions recommended by Pak-Fan Composite Sharif Co. For more details about the molding conditions consult with the company.

HANDLING AND TRANSPORTATION

Avoid shooting, shaking and vibrating the product packages during transportation, handling and storage because these may deteriorate uniformity of the compound.

STORAGE

PC6020 should be stored in dry indoor conditions at temperatures between 5-25 °C, in its original unopened packages before using in molding process. Storage at higher temperatures will reduce the shelf life. The expiry date of the product under the storage conditions recommended is given on the product packages. Storage of opened packages for long period should be avoided.

TERMS AND CONDITIONS OF USE

The information and data presented in this technical data sheet have been validated by laboratory and practical tests and are believed to be accurate and reliable. Nevertheless, the quality of brake pads produced based on **PC6020** friction compound is strongly related to the manufacturing process used. As a result, the quality of the friction composite produced based on **PC6020** compound may vary from one manufacturer to another one. Hence, since we cannot control the manufacturing process, the customers shall remain responsible for satisfying themselves that **PC6020** friction compound manufactured by Pak-Fan Composite Sharif Co. is acceptable for their intended process and purpose. We warrant that **PC6020** friction compound is free from defects in accordance with and subject to our general conditions of supply.