Ketron® CA30 LSG PEEK stock shapes are produced from selected batches of polyetheretherketone resins. This 30% carbon fibre reinforced grade combines even higher stiffness, mechanical strength and creep resistance than Ketron® LSG GF30 PEEK blue with an optimum wear resistance. Ketron® LSG CA30 PEEK stock shapes have also been successfully type tested for their compliance with both United States Pharmacopeia (USP) and ISO 10993-1 guideline requirements for Biocompatibility Testing of Materials, and they come with full traceability from resin to stock shape. These features, added to an excellent sterilizability by means of steam, dry heat, ethylene oxide, plasma and gamma irradiation, make Ketron® LSG CA30 PEEK stock shapes very suitable for applications in the medical, pharmaceutical and biotechnology markets.

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NOTES, SEE DATASHEET ON PAGE 1

-1 The figures given for these properties are for the most part derived from raw material supplier data and other publications.

-2 Values for this property are only given here for amorphous materials and for materials that do not show a melting temperature (PBI & PI).

-3 Temperature resistance over a period of min. 20,000 hours. After this period of time, there is a decrease in tensile strength – measured at 23 °C – of about 50 % as compared with the original value. The temperature value given here is thus based on the thermal-oxidative degradation which takes place and causes a reduction in properties. Note, however, that the maximum allowable service temperature depends in many cases essentially on the duration and the magnitude of the mechanical stresses to which the material is subjected.

-4 Impact strength decreasing with decreasing temperature, the minimum allowable service temperature is practically mainly determined by the extent to which the material is subjected to impact. The value given here is based on unfavourable impact conditions and may consequently not be considered as being the absolute practical limit.

-5 These estimated ratings, derived from raw material supplier data and other publications, are not intended to reflect hazards presented by the material under actual fire conditions. There is no ‘UL File Number’ available for these stock shapes.

-6 Most of the figures given for the mechanical properties are average values of tests run on dry test specimens machined out of rods 40-60 mm when available, else out of plate 10-20mm. All tests are done at room temperature (23° / 73°F)

-7 Test speed: either 5 mm/min or 50 mm/min [chosen acc. to ISO 10350-1 as a function of the ductile behaviour of the material (tough or brittle)] using type 1B tensile bars

-8 Test speed: either 0.2”/min or 2”/min or [chosen as a function of the ductile behaviour of the material (tough or brittle)] using Type 1 tensile bars

-9 Test speed: 1 mm/min, using type 1B tensile bars

-10 Test specimens: cylinders Ø 8 mm x 16 mm, test speed 1 mm/min

-11 Test specimens: cylinders Ø 0.5” x 1”, or square 0.5” x 1”, test speed 0.05”/min

-12 Test specimens: bars 4 mm (thickness) x 10 mm x 80 mm ; test speed: 2 mm/min ; span: 64 mm.

-13 Test specimens: bars 0.25” (thickness) x 0.5” x 5”; test speed: 0.1”/min ; span: 4”

-14 Measured on 10 mm, 0.4” thick test specimens.

-15 Electrode configuration: Ø 25 / Ø 75 mm coaxial cylinders ; in transformer oil according to IEC 60296 ; 1 mm thick test specimens.

-16 Measured on discs Ø 50 mm x 3 mm.

-17 Measured on 1/8” thick x 2” diameter or square

-18 Test procedure similar to Test Method A: “Pin-on-disk” as described in ISO 7148-2, Load 3MPa, sliding velocity= 0.33 m/s, mating plate steel Rα= 0.7-0.9 μm, tested at 23°C, 50%RH.

-19 Test using journal bearing system, 200 hrs, 118 ft/min, 42 PSI, steel shaft roughness 16x2 RMS micro inches with Hardness Brinell of 180-200

-20 Test using Plastic Thrust Washer rotating against steel, 20 ft/min and 250 PSI, Stationary steel washer roughness 16x2 RMS micro inches with Rockwell C 20-24

-21 Test using Plastic Thrust Washer rotating against steel, Step by step increase pressure, Test ends when plastic begins to deform or if temperature increases to 300°F.

This product data sheet and any data and specifications presented on our website shall provide promotional and general information about the Engineering Plastic Products (the “Products”) manufactured and offered by Mitsubishi Chemical Advanced Materials and shall serve as a preliminary guide. All data and descriptions relating to the Products are of an indicative nature only. Neither this data sheet nor any data and specifications presented on our website shall create or be implied to create any legal or contractual obligation.

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