



MAIN CHARACTERISTICS

- Very high max. allowable service temperature in air (250°C continuously going up to 310°C for short periods)
- High mechanical strength, stiffness and hardness, also at elevated temperatures
- Excellent chemical and hydrolysis resistance
- Excellent wear & frictional behaviour (particularly KETRON PEEK-HPV and PEEK-CA30)
- Very good dimensional stability
- Inherent low flammability and very low levels of smoke evolution during combustion
- Good electrical insulating and dielectric properties (except for KETRON PEEK-HPV and KETRON PEEK-CA30)
- Excellent resistance against high energy radiation (gamma and X-rays)

APPLICATIONS

GRADES

[KETRON PEEK-1000](#)
[KETRON PEEK-HPV](#)
[KETRON PEEK-GF30](#)
[KETRON PEEK-CA30](#)

PUMP WEAR RINGS

KETRON PEEK-CA30 pump wear rings improve centrifugal pump efficiency by permitting closer running tolerances and eliminating corrosion, galling and wear problems.

STRUCTURAL PARTS

KETRON PEEK is used for vacuum wand handles during semiconductor manufacturing. They typically contact heat and common process chemicals in use.

BUSHINGS, BEARINGS, SEALS, BACK UP RINGS

In applications ranging from aircraft to oilfield drilling, components machined from KETRON PEEK improve performance and reliability.

SCRAPER BLADES IN HEAT EXCHANGERS

The scraper blades of surface heat exchangers used in food, dairy and chemical industries are made of KETRON® PEEK-1000. Its excellent mechanical strength and stiffness at elevated temperatures, high wear resistance and excellent chemical and hydrolysis resistance make it the ideal material for this application.

SLEEVE BEARINGS FOR STEEL WIRE GUIDE ROLLERS

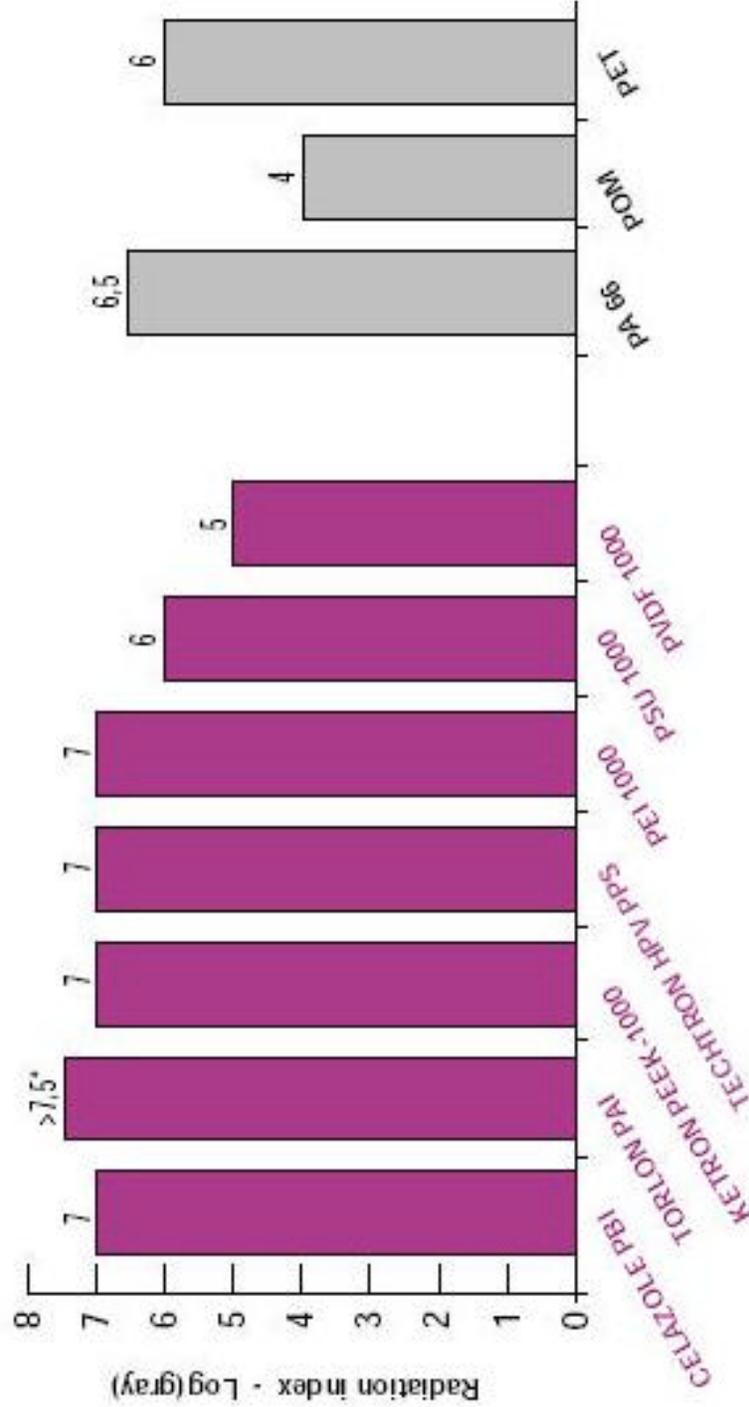
KETRON PEEK-HPV sleeve bearings for steel wire guide rollers used in caustic baths during the wire drawing process, provide an increased lifetime at a much lower cost than the steel ball bearings used at first. This grade was chosen based on its chemical resistance, excellent wear resistance and high load capacity at elevated temperatures.

GAS ANALYSER STRUCTURAL BODY PARTS

The three main structural body parts of a gas analyser used by NASA in satellites are made from KETRON PEEK-1000. Providing good chemical resistance, high temperature resistance and excellent resistance to high energy radiation, this grade assures long life and high reliability. Two more reasons for choosing KETRON PEEK-1000 are its excellent machinability and very good dimensional stability.



Fig. 6 - RESISTANCE TO GAMMA RADIATION



The Radiation Index is defined as the logarithm, base 10, of the absorbed dose in grays at which the flexural stress at break or flexural strain at break of the tested material is reduced to 50% of its original value (the most radiation-sensitive of these two properties is chosen as the reference critical property). The irradiation tests were carried out in air at normal room temperature, and at a mean dose rate of about 220 kGy/h. It should be noted that the Radiation Indexes given here can serve as a guideline only since environmental parameters such as temperature, humidity, oxygen content and dose rate influence the radiation behaviour of materials.

* : even at a dose of 30 MGy (log (gray) = 7.5); there is still no significant effect on the flexural properties.