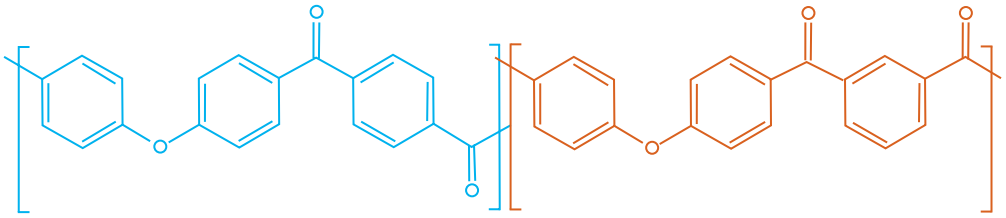
KEPSTAN®
BY ARKEMA

PEKK – Polyether Ketone Ketone

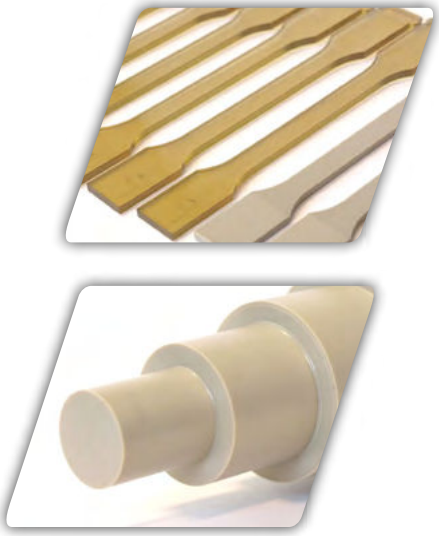
Kepstan® PEKK

KEPSTAN® PEKK RANGE

Kepstan® PEKK is a member of the Poly Aryl Ether Ketone (PAEK) family, which has the uncommon make-up of being a copolymer that contains terephthalic and isophthalic moieties.



The T/I ratio is set at the synthesis level and controls thermal properties and crystallization kinetics of the resulting polymer. Kepstan® PEKK comes in three "series," each with a different T/I ratio as designed by Arkema to better fit application requirements.

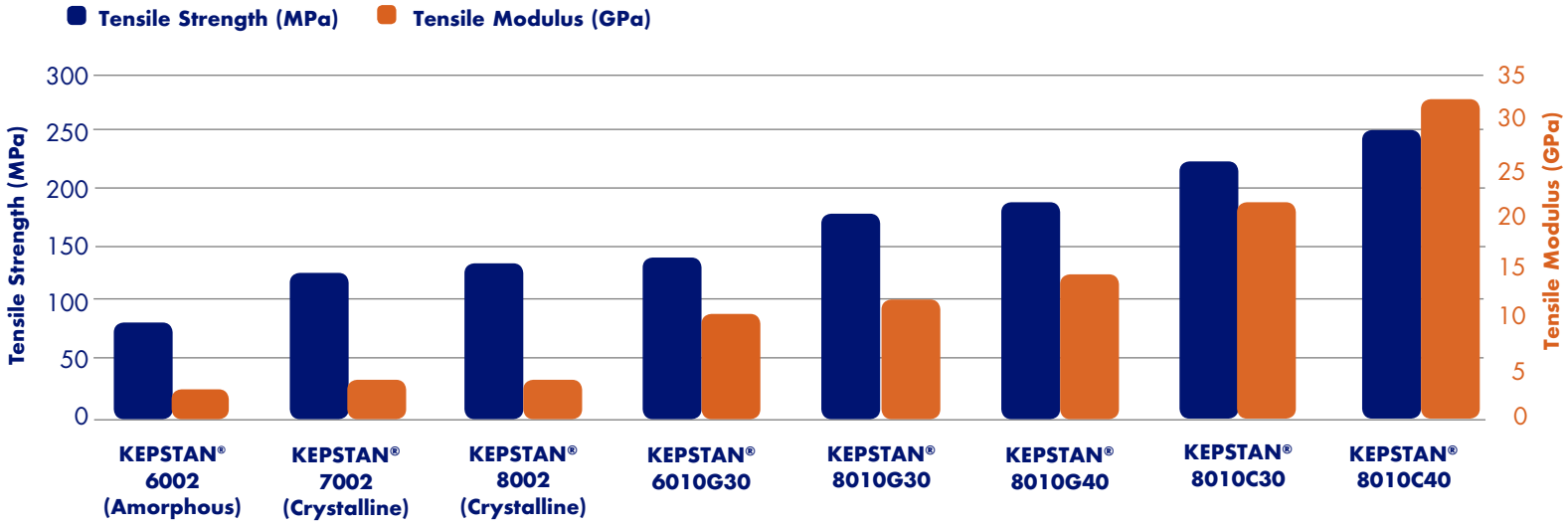


KEPSTAN® PEKK SERIES

SERIES	T/I RATIO	TM	TG	CRYSTALLIZATION SPEED
8000	80/20	358°C	165°C	Fast/Semi-Crystalline
7000	70/30	332°C	162°C	Medium/Semi-Crystalline
6000	60/40	305°C	160°C	Slow/Semi-Crystalline

For each series, two levels of viscosity are offered for better adaptation to the processing technique. Kepstan® PEKK is sold as pellets and powder in the virgin state or compounded with glass fiber or carbon fiber.

TENSILE STRENGTH AND MODULUS

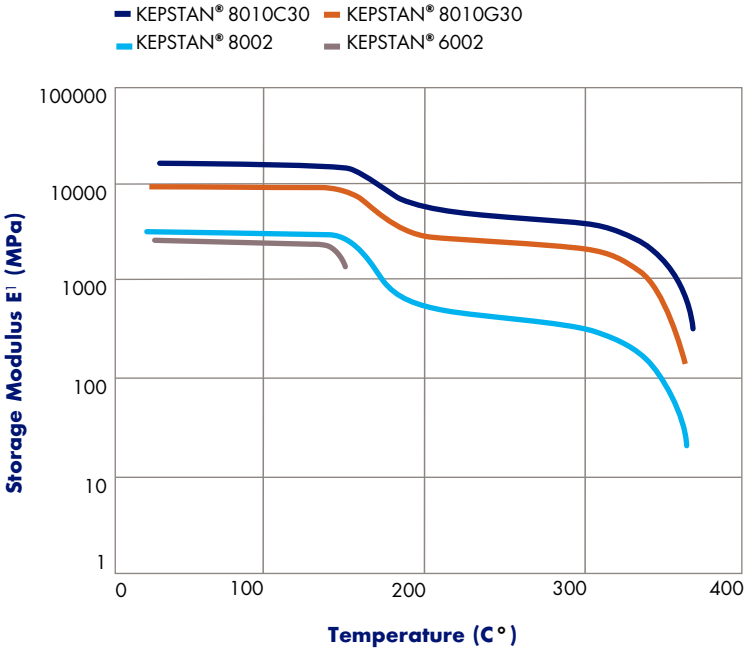


KEPSTAN® PEKK FEATURES

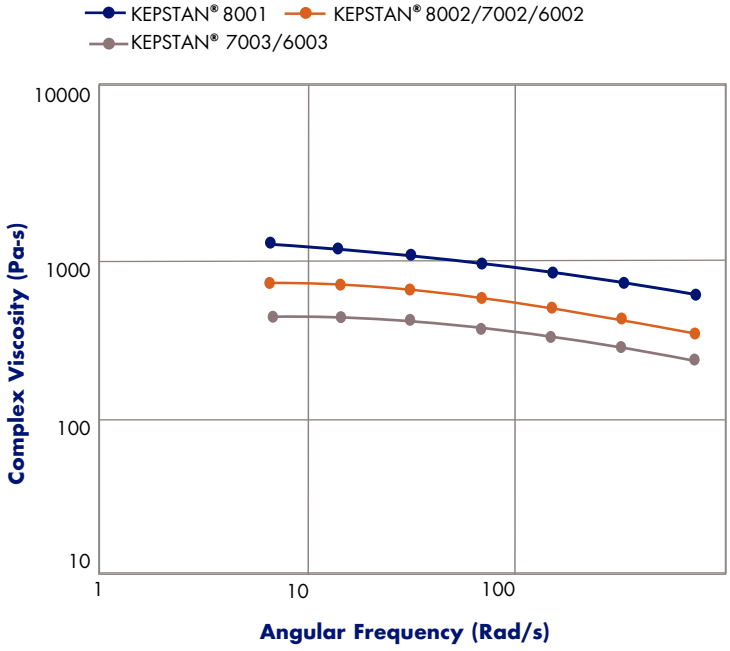
Kepstan® PEKK provides a unique combination of properties over a very wide range of temperature period. This polymer family has exceptional advantages for processing and expands the application possibilities offered by the PAEK family.

- High temperature resistance
  - Highest Tg of PAEK
  - Tm range 305 - 358°C
- High tensile and compression strength/high stiffness
- High chemical resistance in harsh conditions
- Excellent fire properties
  - Low smoke and toxicity
  - Inherently flame retardant
- High purity, very low extractibles
- Processable by all conventional high temperature extrusion and molding techniques
- Exceptional possibilities and advantages in additive manufacturing and composites

FLEXURAL DMTA

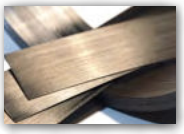


RHEOLOGY



APPLICATIONS & PROCESSING TECHNIQUES

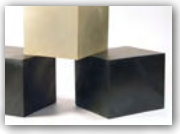
GRADE	FORM	VISCOSITY	APPLICATION
KEPSTAN® PEKK 8000 SERIES		**Highest thermo-mechanical properties**	
8001	Pellets	High	Stock shape extrusion/injection molding
8002	Pellets	Medium	Injection molding
8002PL	50µm Powder	Medium	Powder coating



KEPSTAN® PEKK 7000 SERIES		**Excellent choice for structural composites**	
7002	Pellets	Medium	Film extrusion
7002PL	50µm Powder	Medium	Fabric coating/Prepreg
7002PT	20µm Powder	Medium	UD Tapes
7003	Pellets	Low	Film extrusion
7003PL	50µm Powder	Low	Fabric coating/Prepreg
7003PT	20µm Powder	Low	UD Tapes

KEPSTAN® PEKK 6000 SERIES		**Highly versatile copolymer**	
6002	Pellets	Medium	Extrusion film/Sheet/Thermoforming
6002PL	50µm Powder	Medium	Additive manufacturing/Powder coating
6003	Pellets	Low	Extrusion film
6003PL	50µm Powder	Low	Additive manufacturing/Powder coating

KEPSTAN® PEKK COMPOUNDS



GRADE	FILLER	BASE POLYMER	APPLICATION
6010G30	30% Glass	6000	**Injection molding**
8010G30	30% Glass	8000	**Stock shapes extrusion**
8010G40	40% Glass	8000	
8010C30	30% Carbon	8000	
8010C40	40% Carbon	8000	

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