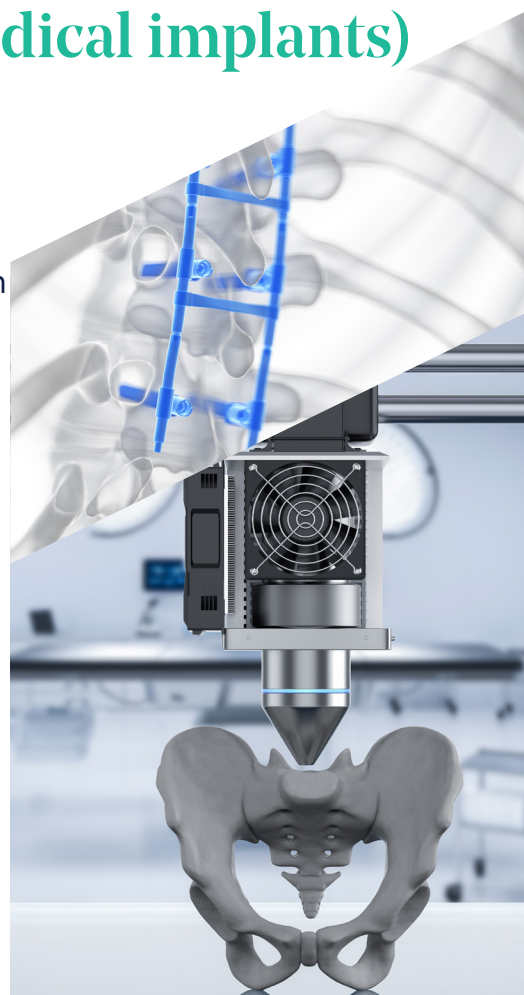
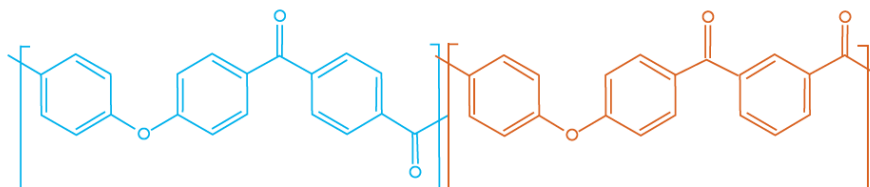


IMPEKK™ (PEKK for long term medical implants)

IMPEKK™ Medical PEKK by Seqens is a high performance thermoplastic polymer obtained by polymerization of diphenyl ether, terephthaloyl chloride, and isophthaloyl chloride. IMPEKK™ is targeted at permanent surgical implants such as spinal, cranial and dental implants. Due to its tailored crystallization speed, IMPEKK™ is extremely suitable for Additive Manufacturing.



CHEMICAL STRUCTURE



Chemical Name: poly-ether-ketone-ketone

Synonym/acronym : PEKK

PROPERTIES & APPLICATIONS

Key properties

- ▮ Elastic modulus close to cortical bone
- ▮ X-ray translucency
- ▮ Chemical inertness
- ▮ Outstanding compressive strength
- ▮ Toughness
- ▮ Sterilizable

As well as

- ▮ Particularly designed for Additive Manufacturing
- ▮ Amenable to all polymers processing techniques
- ▮ Excellent tribological properties
- ▮ High Tg
- ▮ Halogen-free
- ▮ Excellent barrier properties

SEQENS UNIQUE OFFER

Available IMPEKK™ grades :

	IMPEKK™ 60/40	IMPEKK™ 80/20
Appearance	Golden/Yellow (amorphous) White to cream solid (semi-crystalline)	White to cream solid
Polymer Type	Pseudo-amorphous	Semi-crystalline
Melting point (°C)	305	358
Glass Transition range (°C)	155-165	160-170
Available as	Flakes Pellets & Filaments (*)	Flakes Pellets (*)

The T/I ratio controls the thermal properties and crystallization kinetics of the resulting polymer.

IMPEKK™ is available in 2 grades, each with a different T/I ratio, developed by Seqens to better meet application requirements.

(*) :from H1 2022