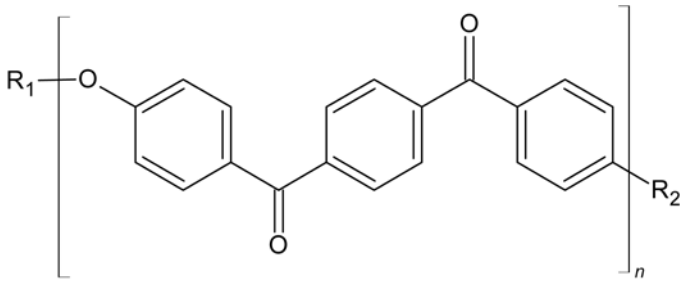


# IMPEKK™ (PEKK for long term implants)

PEKK Medical grade is a Thermoplastic polymer obtained by polymerisation of monomer EKKE with Isophthaloyl and Terephthaloyl chloride. Allowing various applications (dental and long term implants like spinal, cranial, CMF...) because of its higher mechanical strength and the presence of the second Ketone group, that allows more surface modification on its surface.



## CHEMICAL STRUCTURE



**Chemical Name:** poly-ether-ketone-ketone  
**Synonym/acronym :** PEKK

## PROPERTIES & APPLICATIONS

### Properties

- ▣ Shock absorbance
- ▣ Fracture resistance
- ▣ Mechanical strength
- ▣ Chemical resistance
- ▣ Thermostability

### Applications

- ▣ Excellent barrier properties and the highest compressive strength among all polyarylether ketones
- ▣ Easy processing by 3D printing technology (FFF)
- ▣ Suitable for sterilization
- ▣ **Excellent shaping capacity beyond its melting point, suitable for :**
  - ▣ injection molding
  - ▣ extrusion (films, plastics, tubes)
  - ▣ 3D printing

## SEQENS UNIQUE OFFER

Ultra high performance copolymer that allows for crystallization profiles that match really what you are looking for.

**Available IMPEKK™ grades :**

	IMPEKK™ 60/40	IMPEKK™ 80/20
<b>Appearance</b>	White to cream solid	White to cream solid
<b>Crystallization point (°C)</b>	NA	280-300
<b>Polymer Type</b>	Pseudo amorphous	Semi-crystallin
<b>Shape</b>	Flakes/Granules (G)/Filament (F)	Flakes/Granules(G)
<b>Equivalence with industrial series</b>	6002	8001

60/40 & 80/20 refers to the ratio of isophthaloyl and terephthaloyl chlorides that allow the crystallinity of the polymer to be modified and therefore influence the viscosity and crystallization temperature