AMORPHOUS THERMOPLASTICS

POPULAR MATERIAL CHOICES:

ABS PMMA PPE PETG PC
HIPS PVC PPSU PEI

Amorphous polymers have a random molecular structure that does not have a sharp melting point. Instead, they soften gradually as temperature rises. Amorphous materials are more sensitive to stress failure due to the presence of hydrocarbons.

THE GOOD

- Softens over a wide temperature range
- Good formability
- Transparency
- Bonds well using adhesives or solvents

THE NOT-SO GOOD

- Poor chemical resistance
- Prone to stress cracking
- Poor fatigue resistance
- Structural applications only (not suitable for bearing and wear)