

# Datasheet

## Machinable Thermoplastics



### Machinable Thermoplastics

Distribution of machinable thermoplastics according to their maximum service temperature, chemical and mechanical resistance, and degree of crystallinity.



### Standard thermoplastics (T < 65°C)

#### Semi -Crystalline

PE-LD : Low-density polyethylene

PE-LLD : Linear low-density polyethylene

PE-HD : High-density polyethylene

PP : Polypropylene

#### Amorphous

PS : Polystyrene

PVC : Poly (vinyl chloride)

PMMA : Poly (methyl methacrylate)

ABS : Acrylonitrile butadiene styrene copolymer

### Industrial thermoplastics (65°C ≤ T < 120°C)

#### Semi -Crystalline

PBT: Polybutylene terephthalate

PVDF : Polyvinylidene fluoride

PET : Polyethylene terephthalate

PA 6 : Polyamide 6

PA 6,6 : Polyamide 6,6

PA 12 : Polyamide 12

PA 46 : Polyamide 46

POM : Polyoxymethylene (polyacetal)

PE-UHMW: Ultra-high molecular-weight polyethylene

#### Amorphous

PPO : Poly (p-phenylene oxide)

PPE : Poly(p-phenylene ether)

PC : Polycarbonate

The data given in the above table are general informations on the elastomers most frequently-used in industry, and may not represent the complete elastomer product portfolio offered by Boyd nor all the elastomers available on the market.

## Technical thermoplastics ( $120^{\circ}\text{C} \leq T < 230^{\circ}\text{C}$ )

### Semi -Crystalline

FEP: Fluorinated ethylene propylene copolymer

PFA: Perfluoroalkoxy

PEEK: Polyetheretherketone

PPS: Poly (p-phenylene sulfide)

PTFE: Polytetrafluoroethylene

ECTFE: Ethylene chloro trifluoroethylene

### Amorphous

PEI: Poly (etherimide)

PPSU: Poly(phenylsulfone)

PSU: Polysulfone

PES: Poly(ethersulfone)

## High-performance thermoplastics ( $T > 230^{\circ}\text{C}$ )

### Semi -Crystalline

PBI: Poly (benzimidazole)

PI: Polyimide

PAI: Polyamide-imide