



Moplen Polypropylene

The Moplen range combines good mechanical properties with cost effectiveness. Product examples include rigid packaging, consumer goods, film, textile, caps & enclosures.

Polypropylene is a thermoplastic polymer used in a wide variety of applications and whilst its properties are similar to polyethylene, it is slightly harder and more heat resistant. It is a commodity plastic with the lowest density in this area of thermoplastics.

Within the Moplen range are options that can be tailored for applications which require higher levels of rigidity or impact resistance. Moplen EP540P is suitable for food contact applications. Key advantages and characteristics of the Moplen range are:

- ✓ Impact resistance
- ✓ Low temperature impact resistance
- ✓ Good mouldability
- ✓ Low density
- ✓ Good chemical resistance
- ✓ Cost effective

| Grade | UoM | Moplen EP240P | Moplen EP540P |
|--|-------------------|---------------|---------------|
| Density | g/cm ³ | 0.9 | 0.9 |
| Tensile Modulus | MPa | 1000 | 1400 |
| Tensile Stress at Yield | MPa | 20 | 28 |
| Tensile Strain at Break | % | >50 | >50 |
| Heat Deflection Temperature @ 0.45MPa | °C | 78 | 90 |
| VICAT Softening Temperature (50°C/h-50N) | °C | 56 | 68 |

| Definition of Terms | |
|--|---|
| Tensile Modulus | A measure of the material's resistance to elastic deformation. The higher the number, the more rigid the material. |
| Tensile Stress at Yield | The maximum amount of stress the material can take before failure. |
| Tensile Strain at Break | How much a material can stretch before it breaks, as a % of its original dimensions. |
| Heat Deflection Temperature | The heat deflection temperature gives an indication at what temperature the material starts to "soften" when exposed to a fixed load. |
| VICAT Softening Temperature (50°C/h-50N) | The determination of the softening point for materials that have no definite melting point. |