

# PP POLYPROPYLENE

PP is a semi-crystalline thermoplastics material similar to the EP, however, it is more resistant, rigid and melts at a higher temperature.

They can be used at temperatures between +5°C and +90°C

Technical details: Raw Material Polypropylene (pp): color natural, red, grey, multicolor.

Specific Gravity: 0.92



## MECHANICAL PROPERTIES

| Temperature of use | Density | Yield Stress | Breakdown Voltage | Modulus of elasticity (tension) | Modulus of elasticity (tension) | Modulus of elasticity (bending) | Hardness Test | Breaking Strength | Resistance Elongation | Wear Creep |
|--------------------|---------|--------------|-------------------|---------------------------------|---------------------------------|---------------------------------|---------------|-------------------|-----------------------|------------|
| C°                 | g/cm³   | Mpa          | Mpa               | %                               | MPa                             | MPa                             | MPa           | MPa               | μ/km                  |            |
| 100                | 0,91    | 30           |                   | >50                             | 1600                            |                                 | 80            | 22                | 4                     | 11         |

## THERMAL PROPERTIES

| Melting Temperature | Glass Transition Temperature | Hot Dimensional Stability (met. A) | Hot Dimensional Stability (met. B) | Use Temperature Limit | Thermal Conductivity | Heat Capacity | Coefficient of Thermal Expansion |
|---------------------|------------------------------|------------------------------------|------------------------------------|-----------------------|----------------------|---------------|----------------------------------|
| C°                  | C°                           | C°                                 | C°                                 | C°                    | W/K.m                | J/K.m         | 10 1/K                           |
| 165                 | -18                          | 65                                 | 105                                | 130                   | 0,22                 | 1,7           | 17                               |

## ELECTRICAL PROPERTIES

| Constant Dielectric | Dielectric Loss Factor | Specific Bulk Resistivity | Surface Resistivity | Rigidity Dielectric | Resistance to Leakage Current |
|---------------------|------------------------|---------------------------|---------------------|---------------------|-------------------------------|
| abs                 | Tan δ                  | Ω.cm                      | Ω                   | kV/mm               | class                         |
| 2,25                | 0,002                  | 10 <sup>14</sup>          | 10 <sup>13</sup>    | >40                 | KA 3c C>600                   |

## VARIOUS PROPERTIES

| Moisture Absorption | Water Absorption until Saturation | Specific Bulk Resistivity |
|---------------------|-----------------------------------|---------------------------|
| %                   | %                                 |                           |
| <0,1                | <0,1                              | HB                        |