



Engineering Polymers



CROMOGENIALINITS

YOUR SPECIALIST FOR SPECIALTIES



PRODUCTS

Engineering Polymers



CROMOGENIA is a global science-based company active in the coatings market, driving environmental progress and creating sustainable values.

CROMOGENIA offers a broad range of technology to passionately innovate with endless possibilities, adding value to people's lives and ensuring profitability.

POLYCARBONATE DIOLS

Polyurethane systems formulated with high-quality building blocks such as ROPOL PC polycarbonate diols enable to obtain bright solutions to improve the light fastness, weatherability, hydrolysis and chemical resistance on your engineering systems. Our Polycarbonate diols under ROPOL PC trade name, in combination with polyisocyanates form a high-quality building block in the formulation of polyurethane compounds such as prepolymers, polyurethane-dispersions and thermoplastic polyurethanes (TPUs) and Elastomers (TPEs). Our unique expertise help your systems to perform consistently combining the advantages of hydrolytic stability and longer term performance with a new degree of flexibility.

GREEN SUSTAINABLE SOLUTIONS

Always with tomorrow's environmental requirements in mind, and by a strong sense of responsibility, our Polycarbonate diols under ROPOL PC trade name, are uniquely designed by high specialized processing avoiding any heavy metal content, which perform better solutions for a green sustainable world.



APPLICATIONS

Applications

Formulation building block for 2K PU

Weatherability and self-healing clear coats, specific construction applications

Building block for prepolymers

Improved light fastness and chemical resistance for a better performance

Building block for TPU or TPE:

Better weatherability and longer term performance compared with polyester

Building block for dispersions

Improved hydrolytic stability and abrasion resistance, specially soft-feel properties

Products and properties

ROPOL PC 11 & 12

ROPOL PC 11 and ROPOL PC 12 is the Cromogenia Units trademark for 1,6-Hexanediol Polycarbonatediols homopolymers.

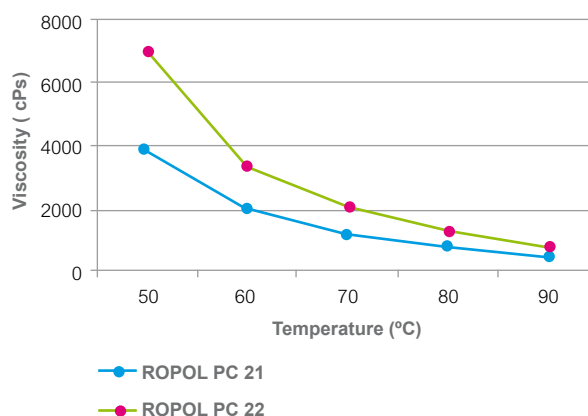
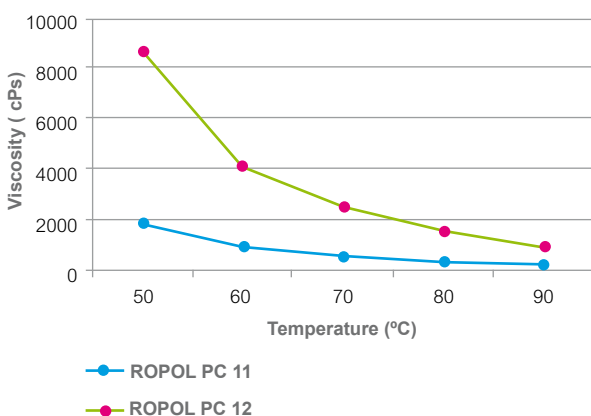
ROPOL PC 21 & 22

ROPOL PC 21 and ROPOL PC 22 is the Cromogenia Units trademark for 1,5-Pentanediol and 1,6-Hexanediol Polycarbonatediols copolymers.

| PROPERTIES | UNITS | ROPOL PC 11 | ROPOL PC 12 | ROPOL PC 21 | ROPOL PC 22 |
|---------------------------------|----------|--------------------------------------|-------------|--|-------------|
| Chemical structure | | 1,6-Hexanediol carbonate homopolymer | | 1,5-Pentanediol and 1,6-Hexanediol carbonate copolymer | |
| Appearance | | White solid | | Viscous liquid | |
| Hydroxyl Value | Mg KOH/g | 110-115 | 52-58 | 108-115 | 54-59 |
| Average molecular weight | g/mol | 1000 | 2000 | 1000 | 2000 |
| Melting point | °C | 40-45 | 44-49 | | |
| Viscosity (70°C) | cPs | 590 | 1550 | 1230 | 1970 |
| Acidity value | Mg KOH/g | 0.1 Max | | | |
| Colour | APHA | 100 Max | | | |
| Water content | % | Less than 0.1 | | | |

Viscosity vs. Temperature

The evolution of the viscosity versus the temperature is shown as follows.





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