SATURATED POLYESTER POLYOLS FOR POLYURETHANE COATING

Elapol is a worldwide brand of saturated polyester polyols for polyurethane systems used in footwear, flexible and rigid PU foams, cast elastomers and TPU, polyurethane adhesives, and polyurethane coatings.

TECHNICAL PRODUCT BROCHURE

















100% ELACHEM
BUILT ON CHEMISTRY.
INSPIRED BY PEOPLE.





WE ARE ELACHEM PEOPLE.

Founded in Vigevano, Italy, in 2001, Elachem® S.p.A. is a wholly Italian-owned company that has established itself as an international leader in the production of saturated polyesters, polyurethane systems, and high-performance materials.

With an annual production capacity of 95,000 tonnes of saturated polyesters and 50,000 tonnes of polyurethane systems, the company supplies partners worldwide with innovative, tailor-made solutions.

The acquisition of Epaflex® Polyurethanes in 2008 further expanded its portfolio, adding Thermoplastic Polyurethanes (TPU), elastomers, and other advanced technologies.

At the heart of Elachem®'s innovation are its state-of-the-art laboratories, which oversee the entire development process, from product design to final testing.

FIND WHAT SPEAKS TO YOU.

Explore the four product areas
at the heart of our expertise.

SATURATED POLYESTER

Elapol® is our worldwide brand of saturated polyester polyols for flexible and rigid PU foams, casting elastomers and TPU, polyurethane adhesives and coatings, and polyurethane systems for footwear.

POLYURETHANE SYSTEMS

Our polyurethane systems bring technical precision with a dash of Italian soul.

Our expertise is focused across three key areas: Casual & Sport, Safety, and Fashion, each developed to meet specific performance and design needs.

TPU AND CASE

Epaflex has been actively involved for more than 30 years in manufacturing and supply of polyurethane (PU) systems and thermoplastic polyurethane granules (TPU) in a wide range of industrial sectors. The range of products offered is constantly evolving, thanks to the commitment and resources invested in research and application development.

PRIVATE LABEL

Discover our range dedicated to manufacturers: exclusive brand formulations, produced by Epaflex Polyurethanes S.p.A. and Elachem® Spa to the highest quality standards.

Discover the full range of products on elachem.com

WE SMILE OFTEN.



WE MEAN BUSINESS.

OUR RANGE OF SATURATED POLYESTER

Elachem S.p.A. offers a broad range of aliphatic and aromatic polyester polyols.

The Saturated Polyester Polyols Division focuses its activities on production and manufacturing processes for the PU industry, in compliance with the highest EHS standards.

Elachem's technical teams provide tailor-made solutions to meet your technological requirements.

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SATURATED POLYESTER POLYOLS FOR POLYURETHANE COATING

SATURATED POLYESTERS MANUFACTURED WITH SYNTHETIC ACID AND GLYCOLS.

Excellent physical and mechanical properties and flexing resistance.

ELAPOL	ACIDS/ ANHYDRIDES	MAIN GLYCOLS	STRUCTURE	APPEARANCE	OH NUMBER mg KOH/g		ACID NUMBER mg KOH/g	BROOKFIELD VISCOSITY mPa·s	WATER CONTENT %	HAZEN COLOUR	FIELD OF USE
2020 B	**Aliphatic**	**MEG, DEG**	Linear	**Waxy**	**54 - 58**		**≤ 0,5**	**4200 - 4700 (35°C)**	**≤ 0,1**	**≤ 150**	Mainly used in the production of PU in solution for coating and direct coating.

ELAPOL	ACIDS/ ANHYDRIDES	MAIN GLYCOLS	STRUCTURE	APPEARANCE	OH NUMBER mg KOH/g		ACID NUMBER mg KOH/g	BROOKFIELD VISCOSITY mPa·s	WATER CONTENT %	HAZEN COLOUR	FIELD OF USE
5520 A	**Aliphatic**	**1,4-BDO, MEG**	Linear	**Waxy**	**54 - 58**		**≤ 0,5**	**4000 - 5100 (35°C)**	**≤ 0,1**	**≤ 100**	Mainly used in the production of PU in solution for coating and coagulation. Very good physical and mechanical properties.
5420 A	**Aliphatic**	**1,4-BDO, MEG**	Linear	**Waxy**	**54 - 58**		**≤ 0,4**	**4700 - 5200 (35°C)**	**≤ 0,1**	**≤ 50**	
5520 C	**Aliphatic**	**1,4-BDO, MEG**	Linear	**Waxy**	**54 - 58**		**≤ 0,5**	**3000 - 5000 (40°C)**	**≤ 0,03**	**≤ 50**	
5508 A	**Aliphatic**	**1,4-BDO, MEG**	Linear	**Waxy**	**136 - 140**		**≤ 0,5**	**1600 - 1800 (25°C)**	**≤ 0,1**	**≤ 60**	

ELAPOL	ACIDS/ ANHYDRIDES	MAIN GLYCOLS	STRUCTURE	APPEARANCE	OH NUMBER mg KOH/g		ACID NUMBER mg KOH/g	BROOKFIELD VISCOSITY mPa·s	WATER CONTENT %	HAZEN COLOUR	FIELD OF USE
5030 A	**Aliphatic**	**1,4-BDO**	Linear	**Solid**	**37 - 40**		**≤ 0,5**	**2500 - 4000 (60°C)**	**≤ 0,05**	**≤ 50**	Used in the production of PU in solution and in granules. Excellent physical and mechanical properties and flexing resistance even at low temperature.
5020 A	**Aliphatic**	**1,4-BDO**	Linear	**Solid**	**54 - 58**		**≤ 0,5**	**1300 - 1500 (60°C)**	**≤ 0,1**	**≤ 40**	
5010 A	**Aliphatic**	**1,4-BDO**	Linear	**Solid**	**114 - 122**		**≤ 0,3**	**200 - 400 (60°C)**	**≤ 0,05**	**≤ 30**	

ELAPOL	ACIDS/ ANHYDRIDES	MAIN GLYCOLS	STRUCTURE	APPEARANCE	OH NUMBER mg KOH/g		ACID NUMBER mg KOH/g	BROOKFIELD VISCOSITY mPa·s	WATER CONTENT %	HAZEN COLOUR	FIELD OF USE
9020 A	**Aliphatic**	**1,4-BDO, NPG**	Linear	**Liquid**	**54 - 58**		**≤ 1**	**8200 - 9800 (35°C)**	**≤ 0,1**	**≤ 100**	Used in the production of coating PU resins and in the processes of coagulation. Excellent physical and mechanical properties with good resistance to hydrolysis.
9010 A	**Aliphatic**	**1,4-BDO, NPG**	Linear	**Liquid**	**108 - 116**		**≤ 1**	**1800 - 2600 (35°C)**	**≤ 0,1**	**≤ 100**	

ELAPOL	ACIDS/ ANHYDRIDES	MAIN GLYCOLS	STRUCTURE	APPEARANCE	OH NUMBER mg KOH/g		ACID NUMBER mg KOH/g	BROOKFIELD VISCOSITY mPa·s	WATER CONTENT %	HAZEN COLOUR	FIELD OF USE
10030 A	**Aromatic/Aliphatic**	**1,6-hexanediol**	Linear	**Solid**	**33 - 37**		**≤ 0,7**	**5100 - 7000 (70°C)**	**≤ 0,08**	**≤ 200**	Used in the production of water-based PU dispersions for leather finishing. Excellent physical and mechanical properties; high hydrolysis resistance.
10020 A	**Aromatic/Aliphatic**	**1,6-hexanediol**	Linear	**Solid**	**54 - 58**		**≤ 0,8**	**900 - 1300 (75°C)**	**≤ 0,08**	**≤ 150**	

ELAPOL	ACIDS/ ANHYDRIDES	MAIN GLYCOLS	STRUCTURE	APPEARANCE	OH NUMBER mg KOH/g		ACID NUMBER mg KOH/g	BROOKFIELD VISCOSITY mPa·s	WATER CONTENT %	HAZEN COLOUR	FIELD OF USE
6510 B	**Aliphatic**	**1,6-hexanediol, NPG**	Linear	**Solid**	**117 - 123**		**< 0,6**	**250 - 300 (60°C)**	**< 0,1**	**< 100**	Excellent hydrolysis resistance and good flexibility in a wide temperature range.
6520 B	**Aliphatic**	**1,6-hexanediol, NPG**	Linear	**Solid**	**54 - 58**		**< 0,7**	**5000 - 5800 (35°C)**	**< 0,1**	**< 100**	

ELAPOL	ACIDS/ ANHYDRIDES	MAIN GLYCOLS	STRUCTURE	APPEARANCE	OH NUMBER mg KOH/g		ACID NUMBER mg KOH/g	BROOKFIELD VISCOSITY mPa·s	WATER CONTENT %	HAZEN COLOUR	FIELD OF USE
4028 A	**Aliphatic**	**DEG**	Linear	**Liquid**	**38 - 42**		**≤ 0,8**	**7000 - 8000 (35°C)**	**≤ 0,08**	**≤ 100**	Mainly used in the production of PU in solution for coating. Excellent elastomeric properties and average general features.
4010 A	**Aliphatic**	**DEG**	Linear	**Liquid**	**108 - 116**		**≤ 1**	**900 - 1150 (35°C)**	**≤ 0,1**	**< 100**	
4004 A	**Aliphatic**	**DEG**	Linear	**Liquid**	**271 - 289**		**≤ 0,8**	**280 - 380 (25°C)**	**≤ 0,08**	**≤ 100**	

elachem.com

Worldwide exporter of Saturated Polyester,
Polyurethane Systems, TPU and CASE

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LET'S TALK

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OUR COMMITMENT

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