ELA chem

Aromatic polyesters for

PU Thermal Insulation Rigid foam

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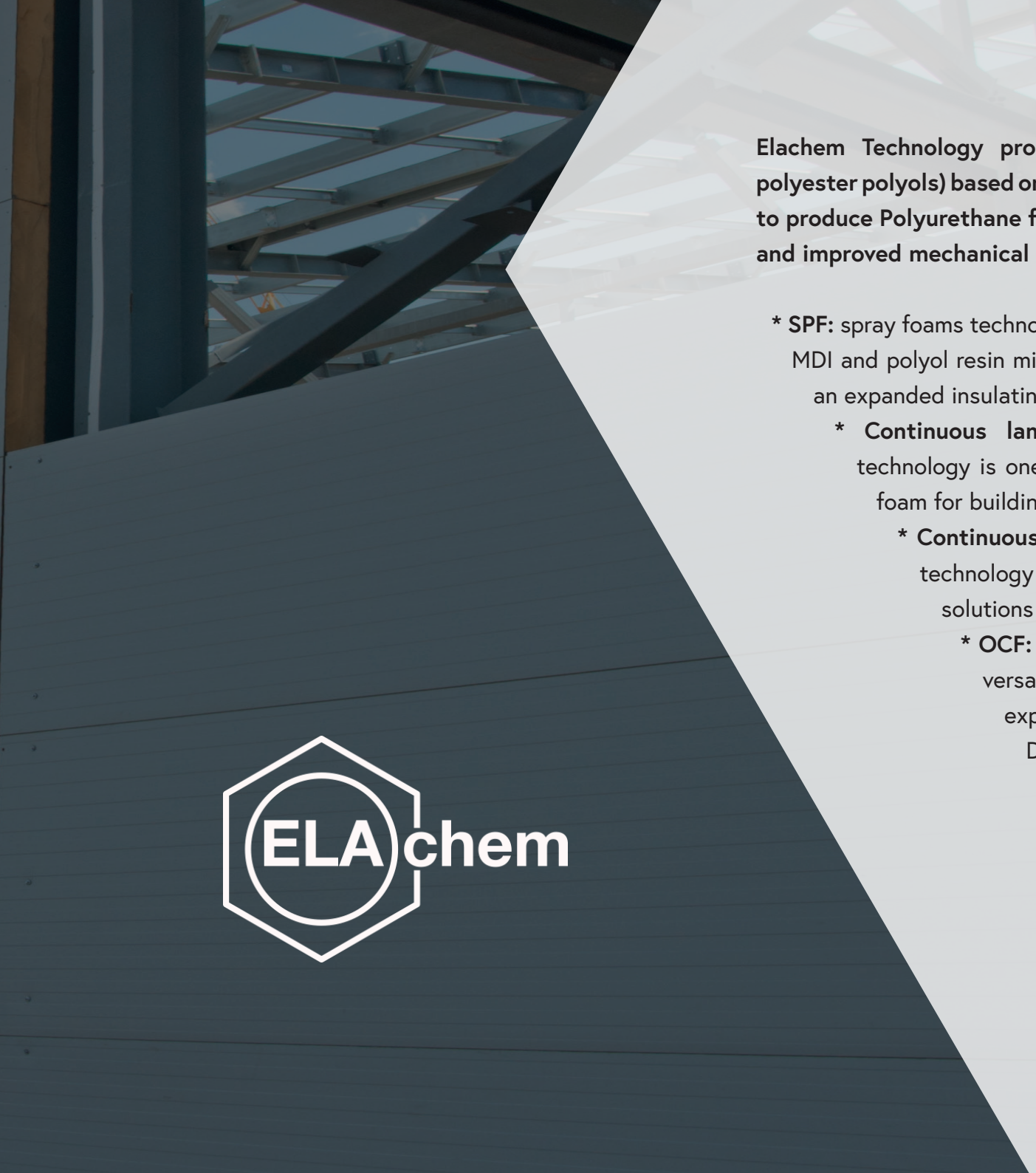

Elachem Technology produces different types of APP (Aromatic polyester polyols) based on PET, PA or PTA. APP's react with Isocyanates to produce Polyurethane foams with high fire resistance, high rigidity and improved mechanical properties for different applications:

* **SPF:** spray foams technology , a two-component mixture of isocyanate MDI and polyol resin mixed together via a spray nozzles gun forming an expanded insulating polyurethane foam onto roofs , loft or walls
* **Continuous lamination (flex facings):** using a PUR/PIR technology is one of the best solutions for thermal insulation foam for buildings (walls cavity ,roofing and flooring)
* **Continuous lamination (rigid facings):** using a PUR/PIR technology with double metal face is one of the best solutions for thermal insulation cladding and decking.
* **OCF:** one component frothing can , is a simple and versatile way of applying a sealing, insulating and expanded polyurethane foam by professionals or DIYs.

Adhesive Elastomers & Coating : polyurethanes wide applications i.e. flooring, , pipelines and steel protection to polyurea and Automotive

Aromatic polyesters for **PU Thermal Insulation Rigid foam**

Lamination

ELAPOL	ACIDS ANHYDRIDES	MAIN GLYCOLS	STRUCTURE	APPEARANCE	OH NUMBER	ACID NUMBER	BROOKFIELD VISCOSITY (TEMPERATURE)	WATER CONTENT	HAZEN COLOUR	FIELD OF USE
80250	Ar - Al	DEG	Linear	Liquid	230 - 270	≤ 1,5	3000 - 4500 (25°C)	≤ 0,15	≤ 3 (Gardner)	Not modified polyester polyol with reduced viscosity and moderate reactivity without flame retardant. Can be used as a co-polyol.
80315 B	Ar	DEG	Linear	Liquid	300 - 330	≤2.0 - 3.0	2000 - 3000 (25°C)	≤ 0,15	≤ 3 (Gardner)	Standard polyester polyol for general purpose in rigid foams applications: lamination, spray or as a co-polyol in foam systems.
81190	Ar - Al	DEG	Linear	Liquid	180 - 200	≤ 1	3000 - 8000 (25°C)	≤ 0,10	≤ 3 (Gardner)	Polyol with a low hydroxyl number for MDI savings. With reduced viscosity and slightly modified for blowing agent emulsification. Contains flame retardant.
81250	Ar - Al	DEG	Linear	Liquid	230 - 250	1,9 - 2,5	3000 - 4500 (25°C)	≤ 0,15	≤ 3 (Gardner)	Slightly modified polyester polyol for general purpose in rigid foams applications: lamination, spray or as a co-polyol in foam systems with increased acid value for reduced reactivity.
83240	Ar	DEG	Linear	Liquid	230 - 250	1,9 - 2,5	3000 - 4500 (25°C)	≤ 0,15	≤ 3 (Gardner)	Utilized in continuous production of metal and flex-faced rigid PIR foams. Contains flame retardant. Excellent emulsion stability with blowing agent. Strong fire and mechanical properties. Compatible with various pentane isomers.
81241	Ar	DEG	Linear	Liquid	230 - 250	0,6 - 1,5	2000 - 4500 (25°C)	≤ 0,15	≤ 3 (Gardner)	Used mainly in High Speed Flex Faced PIR baords production. Does not contain flame retardant. Excellent compatibility with blowing agent, very fast emulsification and low foams lambda.
83242	Ar	DEG	Linear	Liquid	230 - 250	1,8 - 2,5	3000 - 6000 (25°C)	≤ 0,15	≤ 3 (Gardner)	Used in continuous production of metal and flex-faced rigid PIR foams. Reduced viscosity for easy processing, flame retardant-free. Improved compatibility with blowing agent and emulsification speed
81195	Ar	DEG	Linear	Liquid	190 - 200	1,3 - 1.7	3000 - 5000 (25°C)	≤ 0,15	≤ 3 (Gardner)	Used mainly in flex faced PIR boards on high speed lines, optimized for good quality and thermal performance. Low hydroxyl number for MDI savings.
87251	Ar	DEG	Linear	Liquid	230 - 270	1,0 - 1,5	6000 - 8500 (25°C)	≤ 0,15	≤ 7 (Gardner)	Polyol with ~40% pure r-PET (transparent), optimized for processing and fire performance. Low post-expansion and good thermal performance in produced PIR foams. Mainly used for flex-faced board production.
87190	Ar - Al	DEG	Linear	Liquid	170 - 190	≤ 2.0	3000 - 6000 (25°C)	≤ 0,15	≤ 8 (Gardner)	Polyol with approx. 20% of pure r-PET (transparent) with low hydroxyl number for MDI savings.
85251	Ar - Al	DEG	Linear	Liquid	240 - 260	≤ 3.0	3000 - 4500 (25°C)	≤ 0,15	≤ 3 (Gardner)	Polyol for metal panels and flex faced boards designed for improved fire performance. Cam be used as co-polyol.
85221	Ar - Al	DEG	Linear	HV Liquid	210 - 230	≤ 2.0	10000 - 13000 (25°C)	≤ 0,15	≤ 3 (Gardner)	Polyol is designed to greatly boost fire performance due to its high aromatic content. It can be used as sole polyol but also as co-polyol in PIR formulations
85252	Ar - Al	DEG	Linear	Liquid	250 - 265	1,6 - 2,6	3500 - 6000 (25°C)	≤ 0,15	≤ 8 (Gardner)	Used in metal and flex faced rigid PIR foams with improved fire performace. Does not cintain flame retardant. Slightly improved pentane emulsification
81180	Ar	DEG	Linear	Liquid	170 - 190	0,5 - 1,0	3000 - 8000 (25°C)	≤ 0,15	≤ 4 (Gardner)	Low-hydroxy polyol designed for MDI savings. Low acid value and enhanced blowing agent emulsification enable fast production with high quality, mainly used in flex-faced insulated board production.

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OCF

ELAPOL	ACIDS ANHYDRIDES	MAIN GLYCOLS	STRUCTURE	APPEARANCE	OH NUMBER	ACID NUMBER	BROOKFIELD VISCOSITY (TEMPERATURE)	WATER CONTENT	HAZEN COLOUR	FIELD OF USE
83201	Ar - Al	Sec OH	Linear	Liquid	180 - 200	1.4 - 1.8	2000 - 4000 (25°C)	≤ 0,10	≤ 3 (Gardner)	Is an aliphatic - aromatic, polyester polyol with superior purity manufactured from virgin raw materials. Small addition of secondary hydroxyl groups gives low reactivity for extended shelf life of the final product.
81152	Ar	Sec OH	Linear	Liquid	140 - 160	≤ 2.0	1500 - 2500 (25°C)	≤ 0,10	≤ 3 (Gardner)	Is an aromatic, polyester polyol with superior purity manufactured from virgin raw materials. Low reactivity from secondary hydroxyl groups for extended shelf life of the final product.

Spray Foam

ELAPOL	ACIDS ANHYDRIDES	MAIN GLYCOLS	STRUCTURE	APPEARANCE	OH NUMBER	ACID NUMBER	BROOKFIELD VISCOSITY (TEMPERATURE)	WATER CONTENT	HAZEN COLOUR	FIELD OF USE
87241	Ar	DEG	Linear	Liquid	230 - 250	≤ 1.0	1500 - 2500 (25°C)	≤ 0,15	≤ 4 (Gardner)	Polyol with approx. 30% of pure r-PET (transparent) and low Acid Value for fast reactivity of spray foams can be used as a co-polyol in continuous lamination of rigid foams.
83250	Ar - Al	DEG	Linear	Liquid	230 - 270	≤ 1.5	1400 - 1800 (25°C)	≤ 0,15	≤ 3 (Gardner)	Polyol with moderate reactivity and modified backbone for low viscosity for easy handling and good processability in spray foams.
85250	Ar	DEG	Linear	Liquid	240 - 260	≤ 3.0	3000 - 4500 (25°C)	≤ 0,10	≤ 3 (Gardner)	Polyol is designed for improved fire performance in spray foams, higher Acid Value gives a wider operating window.

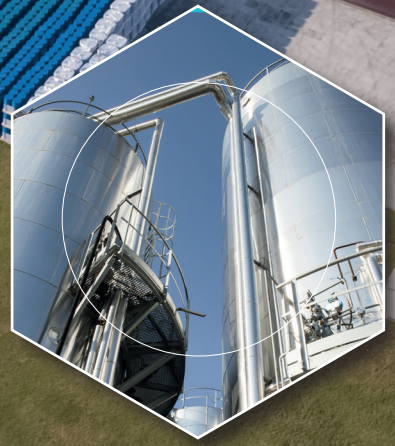
Table legend:

Ar = Aromatic | Al = Aliphatic | Ar - Al = Aromatic- Aliphatic | Sec OH = Secondary OH | HV Liquid = High Viscosity Liquid

Elachem was founded in Vigevano in 2001 and specialises in the production of polyurethane systems mainly for the footwear industry. Following the increase in the production of polyurethane systems and the need to be increasingly competitive on the market, Elachem S.p.a. has decided to integrate with a plant for the production of saturated polyester resins, designed according to individual requirements, and produced with the guarantee of a consolidated experience.

Our history has allowed us to become a market leader, with an annual production of 90,000 tons and satisfied business partners all over the world. The flagships of Elachem are its latest generation laboratories, thanks to which we execute the entire production process, from design to testing.

Certificazioni



Worldwide exporter of Saturated polyester polyols

for polyurethane systems for footwear industry

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for flexible and rigid PU foams

for polyurethane adhesives

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