



**VINYL ESTER  
RESINS**



## VINYL ESTER RESINS

Vinyl ester resins are made in a reaction of epoxy resin and unsaturated monocarboxylic acid, followed with dissolution in styrene or other acrylic reactive monomers. The processing is similar to that of polyester resins; these products are recommended for use in the manufacture of materials exposed to adverse environmental conditions, i.e. high temperature, corrosive agents, stresses, and contact with water.

Vinyl ester resins are characterized by:

- high resistance to a range of chemical compounds, comparable to that of epoxy resins,
- their use enables the production of flexible yet highly thermally resistant composites,
- excellent adhesion to glass, carbon and aramid fibres,
- excellent resistance to osmosis and hydrolysis,
- good adhesion to elements made of polyester and epoxy resins.

Key application industries:

- construction – in the production of tanks, pipes, scrubbers, chimneys, chemical plant components, wind turbines, CIPP (cured-in-place),
- transport – in the production of railway car parts, truck panels, vehicle bodies, yachts,
- in the construction of swimming pools.



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SYMBOL	RESIN PROPERTIES						
	KEY FEATURES	VISCOSITY [mPa·s]	GEL TIME [min]	HDT [°C]	FLEXURAL STRENGTH [MPa]	TENSILE STRENGTH [MPa]	ELONGATION AT BREAK [%]
ESTROMAL VE-06/1	LAMINATES, RIGID	350	15	130	145	90	4,5
ESTROMAL VE-D6/1	LAMINATES, FLEXIBLE	550	23	95	128	80	7
ESTROMAL VE.L-103	THIXOTROPIC, STRUCTURAL LAMINATES	600	55	100	130	60	2,3
ESTROMAL VE-110	THIXOTROPIC, STRUCTURAL LAMINATES	600	30	100	100	75	2,3
ESTROMAL W-3/UV	CIPP TECHNOLOGY, UV-CURED	700	-	105	140	85	6
ESTROMAL W-3	CIPP TECHNOLOGY, HOT-CURED	700	-	105	140	85	6
ESTROMER WR2-H/NH	STYRENE-FREE	700	-	100	140	80	2,6
ESTROMAL VE-02/1	LAMINATES, FLEXIBLE	350	15	110	140	8	6



## **LERG IS THE LARGEST MANUFACTURER OF RESINS IN POLAND**

Our standing as a manufacturer and supplier of products tailored to the Customer needs across our sectors is backed by more of 80 years of experience and expertise. With the highest quality products, integrity and reliability in business relations, we have earned a top position among manufacturers of synthetic resins in Poland and one of the leading suppliers of chemical starting materials and intermediates in Europe.

Our products are used in a range of industries, including construction, automotive, furniture and mining. The core of LERG's offering features polyester, novolak and phenolic resins, resins for wood-derivatives, insulation and composite materials, gelcoats, polyester polyols and formalin, plus Polfill® brand products dedicated to vehicle bodywork and paint repairs.

Approx. 100 new and existing product developments (NPDs, EPDs) are launched at Lerg every year. The quality of our products is demonstrated with awards and certificates, including DNV GL, ISO 9001:2015 Management System Certificate, or the Polish Smart Growth Award.

Lerg operates a well-equipped in-house R&D facility. We also work with international R&D centres in our continuous efforts to provide advanced solutions for our Customers based on optimized technology requirements.



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