

**Devinyl 950 TG** is a high-quality fire retardant, non pre-accelerated, brominated epoxy vinyl ester resin. It is designed for hand lay up molding as well as for spray application. RTM-technologies, for winding production using continuous and periodical method. Pre-accelerated version of the resin is available on request.

## GENERAL PROPERTIES AND FIELD OF APPLICATION

- This resin demonstrates excellent *thermal and chemical resistance* when contacting a wide range of alkaline and as well acidic environments.
- Laminates, produced on the basis of this resin, possess *high flame retardance* in combination with high strength and resistance to alternating loads.
- The rheological properties of the resin provide high-quality wetting of the fiberglass materials and *high physical-mechanical* indicators.
- Used for manufacture of gas ducts and fume ducts, vent hoods, operated and maintained in conditions of aggressive environments and high temperatures, as well as for manufacture of chemically resistant containers. Manufacture of various products, such as, interior trim in automotive industry as well as load-bearing structures of road, rail and electric transports.

### 1. RESIN CHARACTERISTICS WHEN SUPPLIED

Properties	Unit of measurement	Characteristic	Method
Appearance		Transparent brown liquid	Visual
Gel time, at 20°C 1,5% (Trigonox) 239) and 1,5% Co - 1%	Minutes	20-30	Dugalak's procedure
Dynamic Brookfield viscosity RV at 23 °C, 50 speed, spindle 3 Viscosity for RTM version	mPa*s	800-1000 (400-500)	GOST 25271-93 ISO 2555-89
Flash point	°C	31	ISO 3679
Shrinkage below	%	2	ASTM D256-69
Density	kg/m3	1,11-1,14	ISO 2811-2001
Solid content	%	67±1	GOST 17537

### 2. PHYSICAL AND MECHANICAL PROPERTIES OF THE RESIN

[www.dugalak.com](http://www.dugalak.com)

D.O.O. Dugalak, Serbia

**Sales:** 11000 Belgrade, Bul.Arsenija Carnojevica 101

Phone: +381 11 711 9590

E-mail: [ivana.stanasic@dugalak.com](mailto:ivana.stanasic@dugalak.com)

**Technical support:**

Phone: +381 60 389 0180, +7 962 212 37 42

E-mail: [d.zivkovic@dugalak.ru](mailto:d.zivkovic@dugalak.ru)

Properties	Unit of measurement	Characteristic	Method
1. Tensile strength	MPa	70-75	ISO 527-1993
2. Elongation	%	4	ISO 527-1993
3. Tensile modulus	MPa	3200-3500	ISO 2555-89
4. Barcol hardness	Units	35-40	ASTM D 2583-99
5. HDT	<sup>0</sup> C	110	ISO 75-1993

### 3 Table for the selection of the solidification system at a given time of gelation

	Resin - 100 % phr	Resin - 100 % phr	Resin - 100 % phr	Resin - 100 % phr
	1% Co-naphthenate - 1,5% phr	1% Co-naphthenate - 3,0% phr	1% Co-naphthenate - 3,0% phr	1% Co-naphthenate - 3,0% phr
	Trigonox 239 - 1,5% phr	Trigonox 239 - 2,0% phr	Trigonox 239 - 2,0% phr	Trigonox 239 - 2,0% phr
		Promoter C - 0,1% phr	Promoter C - 0,2% phr	Promoter C - 0,3% phr
Gel time at 20 <sup>0</sup> C, minimum	25	110	223	420
Exothermic peak time, min	35	147	310	560
Exothermic temperature time, <sup>0</sup> C	144	120	114	105

### 4. Standard packing

Two-bunghole steel drums of 220 kg, polyethylene, cube-shaped 1100 kg containers

### 5. STORAGE

**Warranty period:** 4 months

**Storage conditions:** store in original packaging in confined space, away from heat sources, at temperature not exceeding 25°C, avoid direct sunlight.

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