



**LUPERFOAM® 329 and LUPEROX® DP33 G**  
 Peroxide system for structural foamed polyester resin

Luperfoam® 329 in combination with Luperox® DP33 G is a system developed for the curing of micro cellular polyester resin having a final density between 0,5 and 0,6 g/cm<sup>3</sup>. Such polyester foam is a reinforcing material.

**Products specifications and typical properties**

**Luperfoam® 329**

Product active composition	IRON TRICHLORIDE CAS: 7705-08-0 EINECS: 231-729-4
	TERT-BUTYLHYDRAZINIUM CHLORIDE CAS: 7400-27-3 EINECS: 231-001-6
Appearance	Amber to green aqueous solution
Refractive index at 20°C	1,41
Density at 20°C	1,11 g/ml
Freezing point	< 10°C

**Luperox® DP33 G**

Product active composition	METHYL ETHYL KETONE PEROXIDES CAS: 1338-23-4 EINECS: 215-661-2
	TERTIOBUTYL PEROXYBENZOATE CAS: 614-45-9 EINECS: 210-382-2
Amount of active oxygen	8,8 %
Density at 20°C	1,021 g/ml
Flash point (setapoint)	77,5 °C
SADT	56°C

Products can be stored minimum three months after receiving date, if kept in appropriate conditions and below their maximum storage temperature. Refer to the Safety Data Sheets for detailed storage instructions.

**Dosage**

Typical concentrations, in pure resin, are:

Luperfoam® 329            1,25%  
 Luperox® DP33 G        3%

**Use**

- First add in the resin the appropriate quantity of Luperfoam® 329 and stir thoroughly.
- Then add Luperox® DP33 G and mix again. Foaming quality strictly depends on stirring accuracy.
- DO NOT MIX directly Luperfoam® 329 with Luperox® DP33 G because of the risk of violent decomposition.
- Pour or inject the resin mixture into the mold. Foaming and curing begin few minutes after peroxide addition.



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## Applications

- Low-pressure molding.
- Vacuum molding
- RTM, RTM Light

And generally speaking any closed molding technology run at low temperature.

## Advantages of Luperfoam® System

- 30 to 60% less resin.
- Lighter final parts with equivalent mechanical resistance.
- Better glass impregnation due to resin expansion.
- Faster molding cycles.
- Reduction of fiber print-through phenomenon.

## Recommended resins

Luperfoam® 329 / Luperox® DP33 G system works best with ready-to-use foaming resins.

Please ask your resin supplier if they have a resin suitable for Luperfoam® system.

Resin can also be formulated directly, starting from medium to high reactivity isophthalic and orthophthalic resins.

## Glass reinforcements

Glass reinforcement has to be chosen in relation to molding technology and final mechanical properties.

## Main mechanical properties of a foamed laminate

Glass Type	Glass content %	Modules of Elasticity MPa	Impact Strength KJ/m <sup>2</sup>	Flexural Strength MPa
U 816	35.0	4320	65.0	116.0
U 816	30.0	3637	48.0	95.0
U 816	20.0	2889	37.0	75.5
U 850	20.0	2521	37.0	66.0
U 812	20.0	3094	51.0	95.0
U 812	29.5	3775	57.0	102.0
U 812	35.9	4445	78.0	128.0

4 mm laminate, prepared by low-pressure molding. All samples have a density comprised between 0,9 and 1,0 g/ml depending on the glass content.

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