

PUG 77 / PUG-78F / PUG-8002 / PUG-8004

DESCRIPTION

The PUG-77, PUG-78F, PUG-8002 and PUG-8004 are un-promoted, high viscosity, unsaturated polyester resins.

FEATURES AND BENEFITS

- Quick wet out/roll out properties
- Acceptance of styrene monomer not more than 40% by weight.
- Fast cycle of curing.
- Low color.

APPLICATIONS

- Fabricación de piezas reforzadas con fibra de vidrio, donde se utilizan los procesos de moldeo manual o aspersión.
- Fabricación de figuras decorativas, donde se requieren curados moderados.

TYPICAL LIQUID PROPERTIES

Property	Units	PUG-77	PUG-78F	PUG-8002	PUG-8004	Method
Acid Number	mg KOH / g muestra	43 máx.	43 máx.	40 máx.	25 máx.	TARQ-100
Non-volatile content	%	76 - 78	77 - 79	76 - 78	76 - 78	TARQ-204
Gardner Viscosity	-----	Z4 - Z6	Z6 - Z7	Z4 - Z6	Z4 - Z6	TARQ-310
Gel Time	Minutos	6 - 10 ¹	5 - 8 ²	7 - 11 ²	3 - 4 ²	TARQ-400
Cure Time	Minutos	16 - 22	10 - 20	20 - 27	10 - 15	TARQ-400
Exothermic Peak	°C	175 - 200	170 - 210	185 máx.	190 máx.	TARQ-400
Stability at 120° C	Horas	1.5	1.5	1.5	1.5	TARQ-660
Apha Color	-----	50	50	80	50	TARQ-610
Appearance	-----	Transparente	Transparente	Transparente	Transparente	Visual

¹ Dilute at 60% solids, 0.25% Co (at 12%), 1% RR catalyst @25°C; ² Dilute to 60% solids, 0.25% Co (at 12%), 1% Butanox M-50 catalyst @25°C.

NOTE: Tests results compared with the reported in certificate can be affected due to: batch age, temperature, moisture, type and amount of catalyst, testing equipment and method.

PHYSICAL PROPERTIES

Physical properties are shown for fiberglass laminate. These are typical values and are provided for reference only.

Property	Units	PUG-77	PUG-78F	PUG-8002	PUG-8004	Method
Tensile Strength	Psi	16,398	16,398	16,398	16,398	ASTM D-638
Tensile Modulus	Psi	2.48 x 10 ⁶	2.48 x 10 ⁶	2.48 x 10 ⁶	2.48 x 10 ⁶	ASTM D-638
Enlogation	%	0.17	0.17	0.17	0.17	ASTM D-638
Flexural Strength	Psi	28,031	28,031	28,031	28,031	ASTM D-790
Flexural Modulus	Psi	1.27 x 10 ⁶	1.27 x 10 ⁶	1.27 x 10 ⁶	1.27 x 10 ⁶	ASTM D-790
HDT	°C	77	77	77	77	ASTM D-648
Barcol Hardness	----	45	45	45	45	ASTM D-2583

- 1.- Laminate construction: 30% fiberglass to resin ratio.
- 2.- Laminate cured overnight at room temperature and post-cured at 65°C for 5 hours.
- 3.- HDT is evaluated at neat resin casting.

RECOMMENDATIONS

- 1.- The catalyst level should not exceed 2.8% or fall below 1% for proper cure.
- 2.- These products should not be used when temperature conditions are below 16°C, as curing and handling may be adversely affected.
- 3.- Do not add any material different to the catalyst recommended for these products.
- 4.- Do not mix organic peroxides with metallic soaps, amines or any type of accelerators or promoters, because it can result on violent decomposition with fire or explosion.
- 5.- Any additional questions, please contact your Reacciones Químicas SA de CV sales representative.

STORAGE

Uncatalyzed PUG-77, PUG-78F, PUG-8002 and PUG-8004 resins, have a usage life of three months from invoice date, when stored at 25°C or below, in a closed,

factory sealed opaque containers, and out of direct sunlight, heat sources or moisture. For every 7°C increase in storage temperature, the shelf life is reduced by one half.

SAFETY AND HANDLING

Detailed information for safe handling of PUG-77, PUG-78F, PUG-8002 and PUG-8004 resins, can be found on its SDS. For more information, please contact your Reacciones Químicas SA de CV sales representative.

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