

## ESI Resin FW Med O

### Euroresins Standard Industrial Resin

#### Chemical/physical nature

ESI Resin FW Med O is a non pre-accelerated unsaturated polyester based on orthophthalic acid and standard glycols, dissolved in styrene. The resin has a medium reactivity and a medium viscosity.

#### Major applications

ESI Resin FW Med O is particularly suitable for production of tanks, containers and pipes by filament winding process.

#### Product specifications upon delivery

Property	Range	Unit
Appearance	Clear	-
Solid content, IR	53-66	Min
Viscosity, Physical, 100 s-1, 23°C	400-700	mPas
Gel time from 25°C to 35°C	8-21	Min

#### Remarks

The curing characteristics are obtained using 2.0 g Curox M-302 (United Initiators) and 2.0 g Co-oct. solution (1% Co in styrene) added to 100 g resin.

#### Properties of the resin (typical values)

Property	Value	Unit
Flash point	appr.	°C
Stability, no init., dark, 25°C	3	Mon

#### Properties of cast unfilled resin (typical values)

Property	Value	Unit
Tensile strength	70	MPa
Tensile E-modulus	3.7	GPA
Elongation at break	2.0	%
Flexural strength	100	MPa
Flexural E-modulus	3.7	GPA
Heat deflection temp. (HDT)	63	°C
Glass transition temp. (Tg)	93	°C
Impact res. - unnotched sp.	10	Kj/m <sup>2</sup>

#### Curing conditions

The mechanical characteristics are obtained curing the resin with 1 ml Curox M-302 (United Initiators) and 0.4 ml Co-oct. solution (1% Co in styrene) added to 100 g resins. Cured for 24 h at RT and post-cured for 24 h at 80°C.

#### Guidelines before use

Before use the resin should be conditioned at a well-defined, application dependant temperature (usually 15°C minimum for a MEKP / Co-cure).

#### Storage guidelines

The resin should be stored indoors in the original, unopened and undamaged packaging, in a dry place at temperatures between 5°C and 30°C. Shelf life is reduced at higher temperatures and the properties of the resin might change during storage. The shelf life of styrene containing unsaturated polyesters will be significantly reduced when exposed to light. Store in dark and in 100% light tight containers only.

#### Material Safety

A Material Safety Data Sheet of this product is available on request.