

## Product Information

# Vipel® Isophthalic Based Resin for Underground Sewer Pipe Liners

### TYPICAL LIQUID RESIN PROPERTIES\*(1) Vipel®L704-NET-11 see back page

	Nominal
Viscosity @ 77°F/25°C, RVF Brookfield Spindle #4 @ 20 RPM, cps.	5,600
Thix Index 2/20	4.3
Color	Opaque
Specific Gravity @ 77°F/25°C	1.11
Non-Volatiles, %	62
Gel Time @ 140°F with (1.0% Di-(4-tert-butyl-cyclohexyl) peroxydicarbonate and 0.5% Trigonox® KSM), minutes	10
Pot Life @ 77°F/25°C (1% Di-(4-tert-butyl-cyclohexyl) peroxydicarbonate and + 0.5% Trigonox® KSM), hours	45

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### TYPICAL CAST MECHANICAL PROPERTIES\* (2) see back page

		Test Method
Tensile Strength, psi/MPa	13,500/93.1	ASTM D 638
Tensile Modulus, psi/GPa	600,000/4.1	ASTM D 638
Tensile Elongation, %	3.0	ASTM D 638
Flexural Strength, psi/MPa	23,300/161	ASTM D 790
Flexural Modulus, psi/GPa	630,000/4.3	ASTM D 790
Heat Distortion Temperature, °F/°C @ 264 psi	212/100	ASTM D 648
Barcol Hardness	40	ASTM D 2583

\*Typical properties are not to be construed as specifications.



### DESCRIPTION

The Vipel® L704-NET-11 is a high molecular weight isophthalic/unsaturated polyester resin. Vipel® L704-NET-11 Series provides the corrosion resistance, durability and toughness that is required for cured in place pipe applications. Refer to the AOC Corrosion Resistant Resin Guide for corrosion resistance information listed under Vipel® E701.

### FEATURES

- Excellent catalyzed pot life
- Superior mechanical properties
- High molecular weight
- High viscosity version

### BENEFITS

#### Adaptability

AOC's Vipel® L704-NET-11 molecular architecture provides an excellent balance of corrosion and physical properties.

# Vipel® L704-NET-11 Polyester Resin

## PERFORMANCE GUIDELINES

**A.** Keep full strength catalyst levels between 1.0% - 3.0% of the total resin weight.

**B.** Maintaining shop temperatures between 65°F/ 18°C and 90°F/32°C and humidity between 40% and 90% will help the fabricator make a high quality part. Consistent shop conditions contribute to consistent gel times.

## STORAGE STABILITY

Resins are stable for three months from date of production when stored in the original containers away from sunlight at no more than 70°F/21°C. After extended storage, some drift may occur in gel time.

During the hot summer months, no more than two months stability at 86°F/30°C should be anticipated.

## SAFETY

See appropriate Material Safety Data Sheet for guidelines.

## ISO 9001:2000 CERTIFIED

The Quality Management Systems at every AOC manufacturing facility have been certified as meeting ISO 9001:2000 standards. This certification recognizes that each AOC facility has an internationally accepted model in place for managing and assuring quality. We follow the practices set forth in this model to add value to the resins we make for our customers.

## FOOTNOTES

### (1)

The pot life times shown are typical but may be affected by catalyst, promoter and inhibitor concentrations in resin, and environmental temperature. Variations in gelling characteristics can be expected between different lots of catalysts and at extremely high humidities. Pigment and fillers can retard or accelerate gelation. It is recommended that the fabricator check the gelling characteristics of a small quantity of resin under actual operating conditions prior to use.

### (2)

Based on tests on Vipel™ L704-NET-11 pipe at 77°F/25° and 50% relative humidity. Castings were prepared using 1.0% Perkadox 16 and 0.5 Trigonox C.

The information contained in this data sheet is based on laboratory data and field experience. We believe this information to be reliable, but do not guarantee its applicability to the user's process or assume any liability for occurrences arising out of its use. The user, by accepting the products described herein, agrees to be responsible for thoroughly testing each such product before committing to production.

Our recommendations should not be taken as inducements to infringe any patent or violate any law, safety code or insurance regulation.



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