

The CSNRI Casing Spacer is a unidirectional fiberglass sleeve sized for a specific pipe diameter to center pipe in casings during installations under roads, at river and railroad crossings, and in downhole applications. Casing Spacers are an extremely robust solution that eliminates traditional integrity issues that can occur when pipes are pulled through casings, protecting the pipe from damage and reducing construction time and future maintenance costs

A methylmethacrylate based adhesive with high lap shear strength keeps the Casing Spacer secure and mechanically bonds the coil to the carrier pipe. Field applications take less than fifteen minutes, and due to the rapid cure profile of the adhesive, the pipe is ready to pull within two hours of installation. Any abrasion during the pipe pull occurs at the outer layer of the sleeve instead of the coating of the carrier pipe.

The adhesive used to install the Casing Spacer is formulated to be applied by brush, roller, or spray and provides excellent resistance to aqueous chemicals, vibration, and shock at service temperatures to 180°F (82°C). When combined at a 10:1 ratio, the adhesive has a working time of 20-25 minutes and achieves 75% of ultimate strength in only 40 to 45 minutes. A Casing Spacer can be field installed and cured in two hours.

## **Applications**

- Horizontal Directional Drilling (HDD)
- Ideal product for multiple pipes in a pull string
- Pipe pulls under rivers, roads, and railroad crossings

#### **Features**

- Pretensioned unidirectional fiberglass sleeve sized for a specific pipe diameter
- Methylmethacrylate based adhesive with high lap shear strength keeps the Casing Spacer secure
- Achieves 75% of ultimate strength in 40-45 minutes, even below 32°F (0°C)
- Installs and cures in two hours
- Full scale testing shows upper bound strength of more than 14,000 lbf

## **BENEFITS:**

- Limits movement of pipe at the ends of casing
- Acts as a bumper for wave action on cased pipe
- Reduces pulling friction
- Eliminates coating wear
- Minimizes deflection
- Provides electrical insulation
- Conforms tightly to pipe
- Slides into place with ease
- Installs without disrupting operations
- No special tools to install
- No environmental hazards





#### **QUALIFICATION DATA**

PROPERTIES	VALUE
Tensile Strength (ASTM D638)	2,000 - 2,250 psi (13.8 MPa - 15.5 MPa)
Modulus	35,000 - 50,000 psi (241.3 MPa - 344.7 MPa)
Strain to Failure	15 - 25%
Lap Shear Cohesive Strength (ASTM D1002)	1,250 - 1,500 psi (8.6 MPa - 10.3 MPa)

Warranty: ClockSpring|NRI routinely implements product improvements. Please contact your local distributor or office for the most current product specifications. ClockSpring|NRI warrants the quality of this product when used according to directions.



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