



# COR72-AA-451PP

## Isophthalic CIPP Resin

### Technical Data Sheet

COR72-AA-451PP is a promoted, thixotropic, rigid, corrosion resistant, unsaturated polyester resin for use in the manufacture of liner pipe using cured-in-place techniques. Data on any specific testing or corrosion recommendations will be supplied upon request. This resin has been formulated for reinforced liners such as Premier Pipe's Tech Liner.

| FEATURES                                                                                                       | BENEFITS                                                                                                                            |
|----------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"><li>• Good Chemical Resistance</li></ul>                                     | <ul style="list-style-type: none"><li>• Withstands exposure to various chemical environments, municipal sewage, and water</li></ul> |
| <ul style="list-style-type: none"><li>• Passed ASTM Test Methods C581, D543, D5813, F1216, and F1743</li></ul> | <ul style="list-style-type: none"><li>• Superior retention of physical properties in corrosion media</li></ul>                      |
| <ul style="list-style-type: none"><li>• Tested Under ASTM D2990 for Flexural Modulus Creep</li></ul>           | <ul style="list-style-type: none"><li>• Retains structural integrity over time of use</li></ul>                                     |

| RELATED PRODUCTS                                                   | GEL TIME                       |
|--------------------------------------------------------------------|--------------------------------|
| COR72-AA-451 (Viscosity 2,500-3,500; Thixotropic Index 3.0-3.5)    | 6-14 Minutes (RTCS >24 Hours)  |
| COR72-AA-451LV (Viscosity 1,700-2,200; Thixotropic Index 3.0-3.8)  | 6-14 Minutes (RTCS >24 Hours)  |
| COR72-AA-451PP (Viscosity 1,700-2,200; Thixotropic Index 3.0-3.8)  | 6-14 Minutes (RTCS >24 Hours)  |
| COR72-AA-451S (Viscosity 2,500-3,500; Thixotropic Index 3.0-3.5)   | 10-20 Minutes (RTCS >48 Hours) |
| COR72-AA-455 (Viscosity 3,900-5,000; Thixotropic Index 4.0-5.0)    | 5-15 Minutes (RTCS >24 Hours)  |
| COR72-AA-455EX (Viscosity 3,900-5,000; Thixotropic Index 4.0-5.0)  | 15-25 Minutes (RTCS >48 Hours) |
| COR72-AA-455HT (Viscosity 5,000-6,000; Thixotropic Index 4.75-5.5) | 5-15 Minutes (RTCS >24 Hours)  |
| COR72-AA-455HV (Viscosity 5,000-6,000; Thixotropic Index 4.0-5.0)  | 5-15 Minutes (RTCS >24 Hours)  |
| COR72-AA-457 (Viscosity 5,000-6,000; Thixotropic Index 4.0-5.0)    | 10-20 Minutes (RTCS >48 Hours) |

| LIQUID PROPERTIES                                                                                              | RESULTS               |
|----------------------------------------------------------------------------------------------------------------|-----------------------|
| Viscosity, Brookfield Model RV #4 Spindle @ 20 rpm, 77°F (25°C), cPs                                           | 1,700-2,200           |
| Thixotropic Index                                                                                              | 3.0-3.8               |
| Gel Time run in a 140°F (60°C) water bath, initiated with 1.0 phr of Perkadox 16 and 0.5 phr of Trigonox 42S * |                       |
| Gel Time, 130°F-150°F (54-66°C), min:sec                                                                       | 6:00-14:00            |
| Gel to Peak Exotherm Time, 150°F (66°C) to Peak Exotherm, min:sec                                              | 2:00-10:00            |
| Peak Exotherm                                                                                                  | 350-450°F (177-232°C) |
| Non-Volatile Content, %                                                                                        | 51.0-56.0             |
| Room Temperature Catalyzed Stability (RTCS), hours                                                             | >24                   |
| Weight per Gallon, lbs.                                                                                        | 8.90-9.20             |

| TYPICAL PROPERTIES                                                                                                                                                                                                                                                  |                           |           |  |                            |           |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------|-----------|--|----------------------------|-----------|
| Thickness                                                                                                                                                                                                                                                           | 1/8 inch (3.2 mm) Casting |           |  | 1/4 inch (6 mm) Laminate   |           |
| Construction                                                                                                                                                                                                                                                        | Not Applicable            |           |  | CIPP Felt Laminate         |           |
| Flexural Strength, ASTM D790                                                                                                                                                                                                                                        | 19,500 psi                | 134 MPa   |  | 8,500 psi                  | 59 MPa    |
| Flexural Modulus, ASTM D790                                                                                                                                                                                                                                         | 5.0 x 10 <sup>5</sup> psi | 3,400 MPa |  | 5.20 x 10 <sup>5</sup> psi | 3,590 MPa |
| Tensile Strength, ASTM D638                                                                                                                                                                                                                                         | 10,000 psi                | 70 MPa    |  | 5,720 psi                  | 39 MPa    |
| Tensile Modulus, ASTM D638                                                                                                                                                                                                                                          | 5.5 x 10 <sup>5</sup> psi | 3,800 MPa |  | 5.53 x 10 <sup>5</sup> psi | 3,810 MPa |
| Tensile Elongation, ASTM D638                                                                                                                                                                                                                                       | 1.8 %                     | 1.8 %     |  | 1.4 %                      | 1.4 %     |
| Barcol Hardness, 934-1 gauge, ASTM D2583                                                                                                                                                                                                                            | 40                        | 40        |  | 32-36                      | 32-36     |
| Heat Distortion Temperature, ASTM D648                                                                                                                                                                                                                              | 220 °F                    | 104 °C    |  | -- °F                      | -- °C     |
| * Gel time and reactivity will vary due to the type and concentration of Free Radical Initiator (catalyst), shop temperature, humidity, and type of fillers used. In order to meet your individual needs consult our technical sales representative for assistance. |                           |           |  |                            |           |

All specifications and properties specified above are approximate. Specifications and properties of material delivered may vary slightly from those given above. Interplastic Corporation makes no representations of fact regarding the material except those specified above. No person has any authority to bind Interplastic Corporation to any representation except those specified above. Final determination of the suitability of the material for the use contemplated is the sole responsibility of the Buyer. Our technical sales representatives will assist in developing procedures to fit individual requirements, but all advice is accepted at your risk and should be checked for suitability to your particular processes. These test data and properties are based on results obtained for a specific material under the specified test conditions. They are not to be used as specifications and are not warranted as performance attributes for any product or system. Specifications and properties of standard production material may vary slightly from those in this report. Interplastic Corporation makes no warranties regarding any material and/or samples described in this report unless that representation is provided to your company in writing by a Technical Director of Interplastic Corporation or one of his or her managers.

**INTERPLASTIC CORPORATION**  
2015 Northeast Broadway Street  
Minneapolis, Minnesota 55413-1775  
651.481.6860 Fax 612.331.4235  
[www.interplastic.com](http://www.interplastic.com)