 **Oak Ridge™**

 **Foam & Coating Systems, Inc.**

**OR90CL**

**Containment Lining**

**Description**

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| OR90CL is a two-component polyurethane-urea hybrid spray elastomer system based on methylene diphenylenediisocyanate designed for industrial applications. Materials are applied via high pressure direct impingement mixing onto concrete, steel or other substrates and allowed to cure in place, forming the finished coating. The component chemistry allows sprayed material to be applied at high thickness (1/2 inch or greater can be achieved), and the high reactivity of the components allows application in a wide range of temperature and humidity.  |

**Typical Component Properties**

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| --- | --- | --- | --- | --- |
|  | **Units** | **OR90CL Part B****Polyol** | **OR90CL Part A****Isocyanate** | **Test Method** |
| Appearance |  | Black Liquid | Yellow Liquid | DOWM 101967 |
| Viscosity @ 23°C | mPas | 400-800 | 500-800 | ASTM D4287 |
| Density 20°C | g/cm³ | 1.04 | 1.14 | ASTM D1475 |
| Flash Point | °F | >200 | >200 | Closed Cup |

 These are typical values and should not be construed as specifications.

**Recommended Process Conditions**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| The Polyol component must be mixed until homogeneous before use. The material is processed with a two-component high pressure dosing machine using impingement mixing technology.

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|  | **Units** | **Limits** |
| OR90CL Part B Polyol | Pbv | 1.00 |
| OR90CL Part A Isocyanate | Pbv | 1.00 |
| Typical Metering Equipment |  | PMC/PHX-40, Graco (other heated two-component proportioning unit also suitable |
| Typical Spray Gun |  | AP-2, Probler |
| Typical Component Temperature | °C (°F) | 60-70 (140-160) Both components, tanks and hose the same |
| Typical Component Pressures | Psi | 2000-2400 |

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**Typical Reaction Characteristics**

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|  | **Units** | **Value** |
| Gel Time | S | 3-6 |
| Tack free time | S | 5-10 days |
| Final hardness | Days | 7 |

These are typical values and should not be construed as specifications.

**Handling and Storage**

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| --- | --- | --- | --- |
|  | **Units** | **OR90CL Part B****Polyol** | **OR90CL Part A****Isocyanate** |
| Storage temperature | °C | 15-25 | 15-25 |
| Storage stability/Shelf life | Months | 6 | 6 |

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| 1. Isocyanate must be protected against humidty and must be stored in unopened drums

**Typical Polymer Properties**

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| --- | --- | --- | --- |
|  | **Units** | **Value** | **Test Method** |
| Hardness | Shore A/D | 48D | ASTM D2240 |
| Tensile Strength | Psi | 2700 | ASTM D412 |
| Elongation at Break | % | 160 | ASTM D412 |
| Tear Resistance | Pli | 340 | ASTM D624C |
| Taber Abrasion | Mg loss | 100 | ASTM D3389, H18 wheel, 1000 g load, 1000 rev. |
| Density | g/cm³ | 1.0 | DIN 53479 |

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**Product Stewardship**

Oak Ridge Foam & Coating Systems, Inc. and its subsidiaries has a fundamental concern for all who make, distribute, and use its products, and for the environment in which we live. This concern is the basis for our Product Stewardship philosophy by which we assess the safety, health, and environmental information on our products and then take appropriate steps to protect employee and public health and our environment. The success of our Product Stewardship program rests with each and every individual involved with Oak Ridge Foam & Coating Systems, Inc. products ─ from the initial concept and research, to manufacture, use, sale, disposal, and recycle of each product.

**Safety Considerations**

Safety Data Sheets (SDS) are available from Oak Ridge Foam & Coating Systems, Inc. SDS are provided to help customers satisfy their own handling, safety and disposal needs and those that may be required by locally applicable health and safety regulations. SDS are updated regularly, therefore, please request and review the most current SDS before handling or using any product. These are available from the nearest Oak Ridge Foam & Coating Systems, Inc. sales office.

**Customer Notice**

Oak Ridge Foam & Coating Systems, Inc. strongly encourages its customers to review both their manufacturing processes and their applications of Oak Ridge Foam & Coating Systems, Inc. products from the standpoint of human health and environmental quality to ensure that Oak Ridge Foam & Coating Systems, Inc. products are not used in ways for which they are not intended or tested, Oak Ridge Foam & Coating Systems, Inc. personnel are available to answer your questions and to provide reasonable technical support. Oak Ridge Foam & Coating Systems, Inc. product literature, including safety data sheets, should be consulted prior to use of Oak Ridge Foam & Coating Systems, Inc. products. Current safety data sheets are available from Oak Ridge Foam & Coating Systems, Inc.

Manufacturer of High Performance Foam/Coatings & Application Equipment

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