

OBIC 1050

Description

OBIC 1050 is a high-pressure, 1:1 by volume, two component, 100% high performance elastomeric polyurethane/polyurea hybrid lining system zero VOC (Volatile Organic Compounds), 100% solid. OBIC 1050 lining system is specifically designed for exceptional chemical resistance. With its highly crossed link formulation, it is impervious to a wide variety of commercial and industrial chemicals.

Application Guidelines

Both Iso "A" Side and Resin "B" Side should be preconditioned between 70-90°F before application. OBIC 1050 must be applied using a high-pressure, plural component, heated, 1:1 by volume, spray equipment with 2000 PSI fluid pressure capability. OBIC 1050 material, both Iso "A" Side and Resin "B" Side, should be heated between 120- 150°F, and spray equipment generate adequate fluid pressure for proper mixing and best polymerization result.

For further detail seek an OBIC Technical Representative for application training.

Application Equipment

OBIC 1050 is designed to be sprayed through high-pressure impingement mixing equipment. Plural component spray equipment must have material heat-control capability, 1:1 by volume and can either be sprayed with a round or flat tip. Refer to equipment manufacturer for equipment specifics and accessories.

Safety

Please refer to MSDS for safety and handling of this material. All personnel working with this material is expected to read and understand the safety recommendations per MSDS. All Personal Protection Equipment must be properly worn to protect worker health and safety.

Equipment Setting Parameters

Iso "A" and Polyol "B" components must be pumped by low-pressure transfer pumps to high-pressure proportional pumping equipment.

Temperature Setting:

Iso "A" Block Heater: 140-160°F

Resin "B" Block Heater: 140-160°F

Hoses (Iso and Polyol): 140-150°F

Hydraulic Pressure Setting:

Equipment Hydraulic Pressure: 2,000-2,500 psi

Equipment Clean-up

Spray equipment should be cleaned immediately after use following the equipment manufacturer's recommended cleaning procedures. Please refer to spray equipment operating and maintenance procedures for further details. OBIC 1050 should be cleaned with an environmentally safe urethane-grade cleaner. Cleaning materials must be free of reactive contaminants, such as water and alcohol. All gun cleaners and spray equipment cleaning materials must be used and disposed of as permitted under local rules and regulations.

Material Storage

OBIC 1050 has a shelf life of twelve (12) months from manufacture date in factory sealed containers. OBIC 1050 has to be stored between 65-80°F. Do not expose unused materials to humid conditions; always provide airtight resealed conditions to unused materials. With materials currently connected to pumps, provide as much airtight/moisture-free conditions to unused materials as possible to ensure proper chemical performance. Drums should be stored on pallet to avoid direct contact with warehouse floor/ground.

Technical Data Sheet



Chemical Technical Data

Mix Ratio by Volume	1A: 1B
Gel Time	3-5 sec
Tack Free Time	8-10 sec
Viscosity (cPs) @ 77°F "A" Iso Side "B" Resin Side	200 ± 20 800 ± 50
Material Density (lbs/gal) @ 77°F "A" Iso Side "B" Resin Side	10.2 lbs./gal 9.0 lbs./gal

Basic Physical Properties

Test Name	Test Method	Value
Hardness (D)	ASTM D2240	75 ± 5
Elongation	ASTM D412	10%
Taber Abrasion (mg Loss/1000 Cycles)	ASTM D624	840 lbs./in
Tensile Strength	ASTM D412	6000 ± 500
Heat Deflection Temp	ASTM D648-07	195°F
DMA Test (Loss Modulus, E" Tg)	ASTM D1640	63.4
Coefficient of Friction Static Kinetic	ASTM D1894	0.225 0.148
Safe Walking Surfaces	ASTM F1637.95	Pass

*3rd party test results were performed in a laboratory environment. Results are for comparison purposes only and should not be considered specifications. Field results will vary significantly due to a large number of variables.

Limitations

The chemical resistance chart should be consulted prior to application; this is an exhaustive chemical compatibility list quantifying pre and post physical properties for chemical exposure per ASTM D543. Application specific processing parameters such as temperature and operating pressure of coated objects must be considered before installing OBIC 1050 coatings system.

Product User Responsibilities

Users of OBIC 1050 product are responsible for reading the general guidelines, product data sheets, specifications and material safety data sheets (MSDS) before using this material. Printed technical data and instructions are subject to change without notice. For additional information or for current technical data instructions, contact OBIC representative.

Product Disclaimer

All guidelines, recommendations, statements, and technical data contained herein are based on information and tests we believe to be reliable and correct, but accuracy and completeness of said tests are not guaranteed and are not to be construed as a warranty, either expressed or implied. It is the user's responsibility to satisfy himself, by his own information and test to determine suitability of the product for his own intended use, application and job situation. User assumes all risk and liability resulting from his use of the product. We do not suggest or guarantee that any hazards listed herein are the only ones which may exist. Neither seller nor manufacturer shall be liable to the buyer or any third person for any injury, loss or damage directly or indirectly resulting from use of, or inability to use, the product. Recommendations or statements, whether in writing or oral, other than those contained herein shall not be binding upon the manufacturer, unless in writing and signed by a corporate officer of the manufacturer. Technical and application information is provided for the purpose of establishing a general profile of the material and proper application procedures. Test performance results were obtained in a controlled environment and Ultimate Linings makes no claim that these tests or any other tests accurately represent all environments.

Chemical Resistances per ASTM D543 for immersion in fluids methods

OBIC 1050 materials are immersed in the chemicals below for a period of seven days; physical properties of pre- and post-immersion were measured to quantify the changes in product physical properties.

Chemical Names	Resistance Rating @25° C
Acetic Acid 10%	1
Acetic Acid 2%	1
Acetic Acid 5%	1
Ammonium Chloride 24.0%	1
Ammonium Chloride 30%	1
Aqua Ammonia	1
Automotive Oil	1
Aviation Fuel	1
Baking Soda 25%	1
Calcium Chloride 50%	1
Calcium Hypochlorite 5%	1
Club Soda	1
Cream Soda	1
Diesel Fuel	1
Ethylene Glycol	1
Hydraulic Oil	1
Hydrochloric Acid 45%	1
Hydrochloric Acid 5.0%	1
Kerosene	1
Mineral Spirits	1
Phosphoric Acid 25%	1
Potassium Hydroxide 50%	1
Saline Solution 30%	1
Sea Water	1
Sodium Carbonate 10%	1
Sodium Hydroxide 50%	1
Sodium Sulfate 20%	1
Sodium Sulfate 30%	1
Sugar Solution 30%	1
Sulfuric Acid 10%	1

Chemical Names	Resistance Rating @25° C
Sulfuric Acid 25%	1
THIO-SUL	1
Turpentine	1
Ammonia 7.5%	2
Ammonium Hydroxide	2
Bleach (Chloride)	2
Boric Acid 4%	2
Citric Acid 10%	2
Formaldehyde 37%	2
Formic Acid 2%	2
Hydrogen Peroxide 10%	2
Lactic Acid 45%	2
Nitric Acid 10%	2
Phosphoric Acid 50%	2
Tannic Acid 12.0%	2
Brake Fluid (DOT 3)	3
Formic Acid 5%	3
Sulfuric Acid 50%	3
Xylene (Xylol)	4
1,1,1 Trichloroethylene	5
Acetic Acid 50%	5
Acetone	5
Benzene	5
Chromic Acid 30%	5
Formic Acid 10%	5
Isopropyl Alcohol (IPA)	5
Methanol	5
Methyl Ethyl Ketone (MEK)	5
Methylene Chloride	5
Rubbing Alcohol	5
Toluene	5

1 – Excellent 2 – Good 3 – Fair 4 – Moderate 5 – Not Recommend