

DESCRIPTION

ART-7052 HE is an aromatic two component modified polyurea. The chemical is manufactured in two component parts and is mixed together at the point of application to create a continuous high-performance elastomeric membrane in just seconds. 100% solids, this environmentally friendly process contains neither solvents (VOC), non CFCs. The fast reaction allows for multiple coats, adding up to any desired thickness and in any color. Excellent performance with high and very low temperatures.

TYPICAL PROPERTIES OF COMPONENTS

Property	Side A Isocyanate	Side B Polymix
Appearance	Liquid	Liquid
Color	Clear Amber	Yellow
Specific gravity @ 77 ° F (25 ° C)	1.10-1.12	1.02 - 1.04
Viscosity, mPa s @ 77 ° F (25 ° C)	600-650	620-900
Ratio	1	1
Freezing point	Less than 32 ° F (0 ° C)	

TYPICAL PROPERTIES OF SYSTEM

PROPERTIES	RESULTS	TEST
Hardness (Shore A)	97	ASTM D 2240
Hardness (Shore D)	45	ASTM D 2240
Reactivity @ 70 ° C	4 - 5 seg	
Specific Gravity	1,01	ASTM D 792
Solids	100 %	
Volatile Organic Compounds	0 %	
Weather Resistance	Aromatic system. Requires UV protection	ASTM D 4329
Elongation	270 % 10%	DIN 53404
Tensile strength	2654 psi 10%	DIN 53404
Tear Resistance Die C	225 Pli 10%	ASTM D 624
Rebound resilience	30 - 33 %	ASTM D 2632
Adhesion	Steel 800-1000 psi / Concrete >500 psi	ASTM 4541
Taber Abrasion, mg of loss/1000 cycles, 1000 grs, CS-17 Wheel	11 mg	ASTM D 4060
Taber Abrasion, mg of loss/1000 cycles, 1000 grs, H-18 Wheel	130 mg	ASTM D 4060

PROCESSING CONDITIONS

ART-7052 HE system components can be processed and sprayed-on high-pressure equipment. It is essential to have equipment that consistently delivers accurate amounts of both components to the mixhead to achieve a high-performance elastomer.

Processing	
Processing Temperature	170 °F
Mixing Ratio (Side A/Side B), by Volume	1 / 1
Reactivity:	
Gel Time:	4 - 5 Sec
Tack-Free	2 - 3 min

PROTECTION THROUGH RESISTENCE

The ART-7052 HE system provides excellent resistance to debris, bacteria and a variety of chemicals, making it a superior product for use in a wide range of applications, from chemical transport to food handling.

Chemical Categories	Rating		Chemical Categories	Rating	
	25°	70°		25°	70°
Water	1	1	Boric Acid 4%	1	2
Sulphuric Acid 10%	2	3	Nitric Acid 10%	3	3
Sulphuric Acid 25%	2	3	Citric Acid 10%	1	1
Sulphuric Acid 50%	3	3	Castor Oil	1	2
Sulphuric Acid 60%	3	3	Heptane	1	2
NaCl Solution 10%	1	1	Gasoline	2	2
NaCl Solution 20%	1	1	Methanol	3	3
NaCl Solution 30%	1	1	Ammonium Hydroxide 28%	1	2
Methylene Chloride	3	3	Formaldehyde 37%	1	1
Sodium Hydroxide 10%	1	1	Sugar solution 30%	1	1
Sodium Hydroxide 20%	1	1	Xylene	3	3
Sodium Hydroxide 40%	1	2	Phosphoric Acid 25%	1	2
Sodium Hydroxide 50%	1	2	Phosphoric Acid 50%	1	2
Potassium Hydroxide 20%	1	3	Chloride acid 45%	2	3
Acetic Acid 2%	1	2	Hydrogen peroxide 10%	2	2
Acetic Acid 5%	1	2	Hydrogen peroxide 30%	2	2
Acetic Acid 10%	1	2	Oleic Acid	3	3
Acetic Acid 50%	3	3	Ammonium Sulphate 5%	1	1
Urea 5%	1	1	Ammonium Sulphate 10%	1	1
Urea 10%	1	1	Ammonium Sulphate 25%	1	1
Urea 25%	1	1	Ammonium Sulphate 40%	1	1
Urea 50%	1	1	Sodium Hypochlorite 13%	3	3
Diesel	1	2	Sodium Hypochlorite 3%	3	3
1 Good 2 Regular 3 Bad					

ELECTRICAL PROPERTIES

PROPERTIES	RESULTS		TEST
Dielectric Constant	Frequency		
	100 KHz	100 Hz	ASTM D-150
40 °C	4.98	5.98	
60 °C	5.12	7.18	
80 °C	5.48	9.22	
Dissipation factor	Frequency		
	100 KHz	100 Hz	ASTM D-150
40 °C	0.288	0.662	
60 °C	0.275	5.882	
80 °C	0.266	24.658	
Resistivity	1.219 * 10 ¹¹ ohms-cm		ASTM D-257
Dielectric strength	1554 V/mil		ASTM D-149

THERMAL PROPERTIES

PROPERTIES	RESULTS	TEST
Thermal conductivity (K)2	0.208 W / m °C	ASTM C-177

FIRE RESISTANCE

Classified as **EUROCLASS E**

Broof-T1 for roofs waterproofing

CFI-S1 for floorings

STORAGE AND HANDLING

Isocyanate Component: Original containers must be kept tightly closed to prevent contamination with moisture and foreign materials, which can adversely affect processing. The isocyanate component will react slowly with water to form polyureas and liberate CO₂ gas, which may cause sealed containers to expand and rupture. Recommended storage temperatures between 24–40 °C (75-104 °F). Shelf life is 12 months when stored in closed, original containers at 25 °C (77 °F).

Polyol Component: The Polyol component must be kept in closed drums to prevent absorption of moisture, which can adversely affect processing. Storage should be maintained between 10-45 °C (50-113 °F). Shelf life is 12 months when stored in closed, original containers at 25 °C (77 °F).

HEALTH AND SAFETY INFORMATION

Appropriate literature has been assembled which provides information concerning the health and safety precautions that must be observed when handling ART-7052 isocyanate and Polyol components. Before working with these products, you must read and become familiar with the available information on their hazards, proper use and handling. This cannot be overemphasized. Information is available in several forms, e.g. material safety data sheet and product labels. Consult your ARTLUX EUROPA representative.

IMPORTANT INFORMATION AND SAFETY PRECAUTIONS

Liquid irritate skin and eyes. Use chemical goggles, protective clothing and rubber gloves when working with chemical components. Vapor and spray mists may be harmful. Use only with exhaust ventilation and a positive pressure air supplied full-face respirator. Don not use if you have chronic breathing problems or if you have had a reaction to isocyanates.

The information and data contained herein are believed to be accurate and reliable; however, it is the user's responsibility to determine suitability of use. Since ARTLUX EUROPA cannot know all of the uses to which its products may be put or the conditions of use, it makes no warranties concerning the fitness or suitability of this products for particular use or purpose.

Users should thoroughly test any proposed used of the ARTLUX EUROPA products and independently conclude satisfactory performance in the application. Likewise, if the manner in which the product is used requires governmental approval or clearance, the user must obtain approval.

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Suggestions of uses should not be taken as inducements to infringe any patents.

For more complete information on the use of ART-7052 HE chemicals, please consult the ACE Safety Manual.