

## TECHNICAL DATA SHEET

# IWR CRYOCOAT® HR

### PRODUCT DESCRIPTION

**IWR CRYOCOAT® HR** is a polyurethane coating obtained from the chemical reaction between **IWR CRYOCOAT® 400** (a modified MDI diisocyanate) and **IWR CRYOCOAT® RTV/F** (a formulated, filler-containing polyol) free from solvents, thinners, plasticisers or any other volatile substances (VOC=0). **IWR CRYOCOAT® HR** can be applied by direct spraying onto sandblasted concrete, steel, polymer foams like polyurethane / polyisocyanurate, EPX/XPS foam. After complete curing **IWR CRYOCOAT® HR** forms a protective coating with high build, glossy surface, great chemical and microbial resistance, high resistance to water vapor transmission and to oxygen, CH<sub>4</sub>, NH<sub>3</sub> and other gases.

**IWR CRYOCOAT® HR** is gas and liquid tight and therefore it used as **polymeric vapor barrier** in LNG/LPG/LEG storage tanks, as **anti corrosion coating** for steel pipes and concrete structures, liquid-tight **secondary barrier** in ammonia and NGL storage tanks, **mechanical protection** coating. For **pre-insulated pipes** it provides the double function of vapor barrier and mechanical protection. **IWR CRYOCOAT® HR** has very high adhesion to adequately prepared steel, concrete, wood, rocks, bricks, polymer foams. Installation should only be made by trained personnel using appropriated dosing and spraying equipment, following our Technical Specifications and Manual.

Property	Standard	Unit of Measure	Value	
Density	EN 1602	g/cm <sup>3</sup>	1,15	
Surface hardness	ISO 868	Shore D	72 - 76	
Abrasion loss	ISO 9352	mm <sup>3</sup>	340	
Tensile strength	ISO 527-1	MPa	@ 23 °C	23,5
Modulus of elasticity			@ -195 °C	69
			@ 23 °C	1530
Elongation at break			@ -195 °C	4200
	@ 23 °C	4		
Tear resistance	DIN 53452	MPa	@ -195 °C	1,2
			25,3	
Thermal contraction coefficient from -30 to -196 °C	ASTM D696	10 <sup>-6</sup> K <sup>-1</sup>	99	
Adhesion to concrete (sandblasted and with primer)	EN 1607	MPa	1,9	
Adhesion to steel (sandblasted and with primer)			7,9	
Service temperature range	--	°C	-196 .. +80	
Crack bridging capability	EN 1052-7	mm	1,14	
Water vapour permeability (measured on samples of 3 mm thickness)	ISO 15106-3 – 37,8 °C, 0/90% R.H.	g/m <sup>2</sup> /24h	≤ 3	
Reaction to fire	DIN 4102-1	Class	B2	

### PROCESS CONDITIONS

MIXING RATIO	<b>IWR CRYOCOAT® 400</b> <b>72 parts by weight</b> <b>IWR CRYOCOAT® RTV/F</b> <b>100 parts by weight</b>
COMPONENTS TEMPERATURE	35 - 40 °C
SUBSTRATE TEMPERATURE	7 - 40 °C

#### **STORAGE AND HANDLING DIRECTIONS**

The liquid products must be stored in the original closed containers until use, at temperature between 10 and 25 °C. Before handling the product all personnel must read and understand the indications given in the Material Safety Data Sheet.

Shelf life in original sealed containers is 6 months.

IWR Cryocoat<sup>®</sup> RTV/F contains fillers that settle during transport and storage; adequate stirring is necessary before use – please refer to the product's Technical Manual.

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TAGOS SRL will in no case be responsible for the use of this product in third parties' patent violation. The data and information given above are to be considered as indications; TAGOS SRL guarantees that the product supplied is compliant to the SUPPLY QUALITY SPECIFICATIONS; no other guarantees are given.

The only guarantee of TAGOS SRL, if its responsibility is proved, will be the product substitution or the refund of the invoice amount. The customer must verify personally that this product can be used under safe conditions in her/his facility and production process; this product must be used under the instructions given by the producer. The use of this product is restricted to trained professional users.

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