



# CRYOLENE 684 AA&VV

## Resilient glass mineral wool blankets engineered for cryogenic applications

Design specifications for storage tanks containing cryogenic fluid such as liquefied natural gas (LNG), ethylene or nitrogen for chemical or combustion processes, are not only highly demanding in terms of construction, but also in terms of insulation. With the tank volume expanding and contracting depending on the level of liquid inside, the insulation must offer high levels of both compressibility and resilience. To meet this requirement, ISOVER has developed the unique CRYOLENE product range.

CRYOLENE 684 has been designed for the insulation of cryogenic pipe expansions. The properties and performance of CRYOLENE 684 have been extensively tested by external institutes and the products are well-proven through decades of successful use worldwide in chemical and LNG applications.



### THERMAL INSULATION

Excellent thermal insulation performance at cryogenic temperatures



### FAST INSTALLATION

Flexibility, lightweight and long-length rolls helps to handle and install CRYOLENE 684 easier and faster



### FIRE REACTION

Non-combustible, Euroclass A1 for effective fire protection on industry sites



### SOUND ABSORPTION

Up to 95% of sound energy absorbed due to optimal longitudinal air flow resistance and uniform porosity values



### HIGH FLEXIBILITY

High resilience and flexibility designed to meet the mechanical demands of cryogenic tanks during its full operational lifetime

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CHARACTERISTIC	SYMBOL	UNIT	QUANTITIES AND DECLARED VALUES						STANDARD
Thermal conductivity	T	[°C]	-150	-120	-100	-50	0	10	EN 12667 EN ISO 13787
	$\lambda$	[W/(m·K)]	0.013	0.017	0.019	0.026	0.034	0.036	
Thermal behaviour	T	[°C]	Operating temperature range -170 °C until + 120 °C						-

CHARACTERISTIC	SYMBOL	UNIT	QUANTITIES AND DECLARED VALUES						STANDARD
Specific thermal capacity	c	kJ/(kg·K)	1.03						ISO 10456
Reaction to fire	-	-	684 VV: Non combustible; Euroclass A1 684 AA: Euroclass A2-s1, d0 684 VV: Fire Spread Index = 0; Smoke Development Index < 20 684 AA: Fire Spread Index < 25; Smoke Development Index < 25						EN 13501-1 ASTM E84
Water behaviour	WS	kg/m <sup>2</sup>	No short term water absorption by partial immersion (WS1 ≤ 1 kg/m <sup>2</sup> )						EN ISO 29767
Tensile strength	-	-	684 VV: reinforced glass veil 684 AA: reinforced aluminium foil The facing contributes to provide the CRYOLENE blanket its tensile strength						-
Chemical behaviour	-	-	Do not contribute to corrosion of stainless steel						ASTM C795/871
Application field	-	-	Product for use in cryogenic applications, such as Liquid Natural Gas storage tanks Shall be enclosed in vapor and water tight construction Non compatible with liquid oxygen						EN 14303
Material	-	-	CRYOLENE products are highly resilient glass mineral wool rolls designed to retain their fibers elasticity over time at temperatures ranging from -170 °C to +120 °C With quality marks EUCEB and RAL by the Gütegemeinschaft Mineralwolle e. V., unrisky regarding health according to German decree on dangerous substances, decree on prohibition of chemicals and to regulation EC No 1272/2008 Note Q						CINI 2.1.02
Facing	-	-	684 VV: faced with a yellow glass veil 684 AA: faced on one side with reinforced aluminum						-
Miscellaneous	-	-	Storage: Rolls must be stocked vertically. For best resilient characteristics, all CRYOLENE references should not be stocked packed more than 3 months. Designation code : MW-EN 14303-T3-WS1 Storage: Rolls must be stocked vertically. For best resilient characteristics, all CRYOLENE references should not be stocked packed more than 3 months. Designation code : MW-EN 14303-T3-WS1						EN 14303
Quality management	-	-	CE-marked according to EN 14303 ISOVER is certified according to EN ISO 9001 and EN ISO 14001						EN 14303 EN ISO 9001 EN ISO 14001
Delivery form	-	-	Please contact your local ISOVER dealer All dimensions require minimum order quantities						-



## www.isover-technical-insulation.com

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