Insulating Material

08-Nov, 2018

Test Property	Remark	Test Procedure	Allowance Value	Rigid Type applied	
insensibility to the first aliphatic hydrocarbons (C4)	perpendicular to plane of foam sheet	sample size 50*50mm*full thickness 1,compression strength test before immersion for reference 2,immersion 15 days in LNG 3,compression strength test after immersion	comp strength lose < 20% of initial strength	insulating type only	At least 5 samples
physical stability +80ºC ~ -163ºC		sample size 50*50mm*full thickness 1, dimensional test for reference 2, in a climatic chamber perform a cycle from -160°C to 80°C (stabilize the samples at least 10 min à -160°C and after go up to 80°C at 5°C/min.) 3, dimensional test after the cycle	volume varition < 20%	both insulating type and supporting type	At least 5 samples
to be closed cells type		ASTM D 2856		both insulating type and supporting type	
no capillar type		sample size 50*50mm*full thickness 1, weight samples before immersion for reference 2, immersion 15 days in LNG 3, weight samples after immersion	weight varition < 20%	both insulating type and supporting type	At least 5 samples
thermal conductivity at room temperature	perpendicular to plane of foam sheet	ASTM C 177	< 0.030 W/mºC	both insulating type and supporting type	
compressive strength at room temperature	perpendicular to plane of foam sheet	ASTM D 1621	> 0.6 Mpa	supporting type only	
compressive strength at room temperature	perpendicular to plane of foam sheet	ASTM D 1621	> 0.14 Mpa	insulating type only	
compressive modulus at room temperature	perpendicular to plane of foam sheet	ASTM D 1621	> 25 Mpa	supporting type only	
density				both insulating type and supporting type	
thermal contraction mean coefficient +20 ~ -196ºC	parallell to plane of foam sheet	ASTM D 696	around 40.10^-6	supporting type only	
creeping under stress of 40% comp. strength, 1000 hours	perpendicular to plane of foam sheet	NF EN 1606	<1%	supporting type only	
self extinguishing		ASTM - 1692 or equivalent		both insulating type and supporting type	

TEST qualified lab In Korea: KOMERI or KTR