

Material properties-15GR(sp)

Test Items		Unit	Result	Test Method
Compressive Strength	Flatwise	N/mm ²	-	ISO604:2002
	Edgewise	N/mm ²	436	
Compressive Modulus	Flatwise	N/mm ²	-	
Compressive Strength	@30days in 20°C sea water	N/mm ²	251	
Compressive Strength	@Heating up to 50°C	N/mm ²	258.0	
Tensile Strength		N/mm ²	60	ISO 527-4:1997
Apparent Interlaminar Shear Strength		N/mm ²	80	ISO14130:2002
Charpy Impact strength (notch type)		KJ/m ²	33	ISO 179-2:1997 KS M 3015 : 2003
Friction			0.09	
Hardness (Rockwell M)		HRM	101	ISO2039-2:1987
Thermal expansion	Flatwise	10 ⁻⁶ mm/°C	46	ASTM D 696
	Edgewise	10 ⁻⁶ mm/°C	255	
Swelling Data	after 30days in 20°C sea water	vol. %	0.13	PASS-S.O.F
	after 30days in 80°C sea water	vol. %	2.59	
	after 30days in 20°C oil	vol. %	0.09	
	after 30days in 80°C oil	vol. %	1.38	
Wear & Friction @10N/mm ² in wet condition	wear	%	1.33	PASS-S.O.F
	Wall thickness change	%	2.26	
	Appearance	-	NOT TO FIND remarkable cracks and delamination	
	Coefficient of friction	-	0.16	
Wear & Friction @10N/mm ² in dry condition	wear	%	0.09	PASS-S.O.F
	Wall thickness change	%	0.21	
	Appearance	-	NOT TO FIND remarkable cracks and delamination	
	Coefficient of friction	-	0.05	

Remark

Attached #1 :
Test report
tested
by Korea
Testing
Laboratory

Attached #2

Attached #3