



DATA SHEET

Techno Bond Aluminum Composite Panel, Saudi Arabia

TABLE 1 PHYSICAL PROPERTIES				
PROPERTIES	Techno Bond			
	4 mm	6 mm	2 mm	3 mm
Aluminum thickness, in (mm)	0.020 (0.5)	0.020 (0.5)	0.010 (0.5)	0.010 (0.5)
Weight, pst (kg/m ²)	1.12 (5.5)	1.50 (7.32)	0.59 (2.9)	0.80 (3.9)
Coefficient of expansion, ASTM D696, in/in/°F	13 x 10 ⁻⁶	13 x 10 ⁻⁶	13 x 10 ⁻⁶	13 x 10 ⁻⁶
Tensile strength, ASTM E8, psi (MPa)	6913 (48)	4978 (35)	-	-
Yield strength, ASTM E8, psi (MPa)	6429 (44)	4466 (30)	-	-
Elongation	13.50%	17.50%	-	-
Thermal conductance, ASTM C976, Btu/(ft ² ×h×°F) (W/(m ² ×K))	10.75 (18)	8.53 (14)	-	-
Minimum Drum peel, ASTM D1781, in-lb/in(N-mm/mm)	22.5 (100)	22.5 (100)	-	-
Thermal resistance, ft ² × h × °F/Btu (m ² ×K/W)	0.09 (0.016)	0.12 (0.021)	-	-
PVDF Coating	GRADE 1			

TABLE 2 FIRE PERFORMANCE PROPERTIES		
PROPERTIES	Techno Bond	
	4 mm	6 mm
Surface burning characteristics, ASTM E84		
Smoke developed index	450 maximum	450 maximum
Flame spread index	25 maximum	25 maximum
Vertical transmission, ASTM E108 (modified)	Passed	Passed
Ignition temperature, ASTM D1929		
Flash ignition	716° F (380° C)	-
Self-ignition	752° F (400° C)	-
Rate of burning, ASTM D635	CCI	-



Full Description of ASTM (American Society for Testing and Materials)

1.1 These test methods cover procedures for assessing the adhesion of coating films to metallic substrates by applying and removing pressure-sensitive tape over cuts made in the film.

Note 1 - This test method has been reported being used to measure adhesion of organic coatings on soft substrates (for example, wood and plastic). Issues with plastic substrates are noted in Appendix X1. A similar test method, ISO 2409, permits tests on soft substrates (for example, wood and plaster). Precision and bias data on the later is lacking. Test Methods D3359 was developed with metal as the substrate and, in the absence of supporting precision and bias data, is so limited.

1.2 Test Method A is primarily intended for use at job sites while Test Method B is more suitable for use in the laboratory. Also, Test Method B is not considered suitable for films thicker than 5 mils (125 μ m).

Note 2 - Subject to agreement between the purchaser and the seller, Test Method B can be used for thicker films if wider spaced cuts are employed.

1.3 These test methods are used to establish whether the adhesion of a coating to a substrate is at a generally adequate level. They do not distinguish between higher levels of adhesion for which more sophisticated methods of measurement are required.

Note 3 - It should be recognized that differences in adherability of the coating surface can affect the results obtained with coatings having the same inherent adhesion.

1.4 This test method is similar in content (but not technically equivalent) to ISO 2409.

1.5 In multicoat systems adhesion failure may occur between coats so that the adhesion of the coating system to the substrate is not determined.

1.6 The values stated in SI units are to be regarded as the standard. The values given in parentheses are for information only.

1.7 This standard does not purport to address the safety concerns, if any, associated with its use. It is the responsibility of the user of this standard to establish appropriate safety and health practices and determine the applicability of regulatory limitations prior to use