

Supplementary Information for Morphological and Mechanical Studies of Al₂O₃-Na₂SiO₃ as Skin Barrier Coated with TiO₂ for Carbon Fiber Reinforced Composite Materials

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1. Calculation of Standard Deviation of Adhesive Strength Results resulting from mass fraction variation and hot pressing temperature

Descriptive Statistics				
Dependent Variable: Adhesive strength				
Temperature	Mass fraction	Mean	Std. Deviation	N
100	2.5	.7333	.07506	3
	2.75	.7967	.07767	3
	3	.6400	.09000	3
	Total	.7233	.09798	9
130	2.5	.5667	.10786	3
	2.75	.7800	.14000	3
	3	.5233	.08505	3
	Total	.6233	.15419	9
160	2.5	.5067	.02887	3
	2.75	.7933	.10970	3
	3	.5333	.05508	3
	Total	.6111	.15095	9
Total	2.5	.6022	.12194	9
	2.75	.7900	.09734	9
	3	.5656	.08791	9
	Total	.6526	.14108	27

2. Standard Deviation of Adhesive Strength Results with Pivot Distance Variation
 - a. Pull off test failure

Variation (mm)	Adhesive strength (MPa)	Mean (MPa)	Standard deviation
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	Data 1	Data 2	Data 3		
120	0.74	0.63	0.66	0.68	0.057
150	0.64	0.74	0.77	0.72	0.068
180	0.73	0.81	0.66	0.73	0.075

b. Adhesive fracture

Variation (mm)	Adhesive fracture area (%)			Mean (%)	Standard deviation
	Data 1	Data 2	Data 3		
120	0.495	0.501	0.110	0.369	0.224
150	26.781	33.063	4.980	21.608	14.739
180	37.347	47.703	45.314	43.455	5.423