

AS 5113 Full Scale Façade Fire Test- Comparison Alpolic NC Vs Solid Aluminium

Preliminary Observations

Sample 1: 3.0mm Solid Aluminium		Pass/Fail
Classification Criteria	Related Classification Measure	
5.4.5(a) T_{w5m}	$\leq 600^{\circ}\text{C}$	Max 620.1 °C Fail
5.4.5(b) $T_{cavity5m}$	$\leq 250^{\circ}\text{C}$	Max 344.6 °C Fail
5.4.5(b) $T_{insulation5m}$	$\leq 250^{\circ}\text{C}$	Max 262.6 °C Fail
5.4.5(c) $T_{unexposedside0.9m}$	$\leq 180^{\circ}\text{C}$	Max 980.2 °C Fail
5.4.5(d)flaming	No flaming	No flaming PASS
5.4.5(d)openings	No openings	Openings Fail
5.4.5(e)spread	No spread beyond specimen	No spread occurred PASS
5.4.5(f)debris flaming	$\leq 20\text{s}$	Flaming debris Fail
5.4.5(g)debris mass	$\leq 2\text{kg}$	Total 43.5kg of debris (largest piece 23kg) Fail

Sample 2: 4.0mm Mitsubishi ALPOLIC NC		Pass/Fail
Classification Criteria	Related Classification Measure	
5.4.5(a) T_{w5m}	$\leq 600^{\circ}\text{C}$	Max 673.5 °C @ 7 min for 6 seconds PASS
5.4.5(b) $T_{cavity5m}$	$\leq 250^{\circ}\text{C}$	Max 235.3 °C @ 16 min PASS
5.4.5(b) $T_{insulation5m}$	$\leq 250^{\circ}\text{C}$	Max 154 °C @ 19 min PASS
5.4.5(c) $T_{unexposedside0.9m}$	$\leq 180^{\circ}\text{C}$	Max 28.8 °C @ 22 min PASS
5.4.5(d)flaming	No flaming	No flaming PASS
5.4.5(d)openings	No openings	No openings PASS
5.4.5(e)spread	No spread beyond specimen	No spread occurred PASS
5.4.5(f)debris flaming	$\leq 20\text{s}$	No Flaming debris PASS
5.4.5(g)debris mass	$\leq 2\text{kg}$	Total 6.65kg of debris (largest piece 180g) fail