

Testing of Fire Retardancy of Wisewool Products Versus Synthetic Substitutes

Summary of tests conducted by NZWTA (independent, accredited laboratory)

	WW WiseFill seat -380.23g back 388.76g	WW WiseLayer seat - 438.30g back - 483.74g	Foam chips seat - 223.94g back - 314.74g	Polyester fill seat - 228.23g back - 317.99g
Property				
Ignition source				
smouldering				
cigarette				
- smouldering after 1 hour	Pass	Pass	Pass	Pass
Ignition source				
butane flame				
- progressive smouldering, various stages	Pass	Pass	Fail	Fail
- flaming failure, various stages	Pass	Pass	Fail	Fail

Test method

BS 5852: 1979 Fire test furniture - Part 1 Methods of test for the ignitability by smokers' materials of upholstered composites for seating

BS 5852: 1982 - Fire test Furniture - Part 2 Methods of test for the ignitability of upholstered composite for seating by flaming sources

The method tests **fill**. Results do not represent behaviour of upholstered furniture. The test method was selected to be able to compare performance of fill products. This information is relevant to many international requirements.

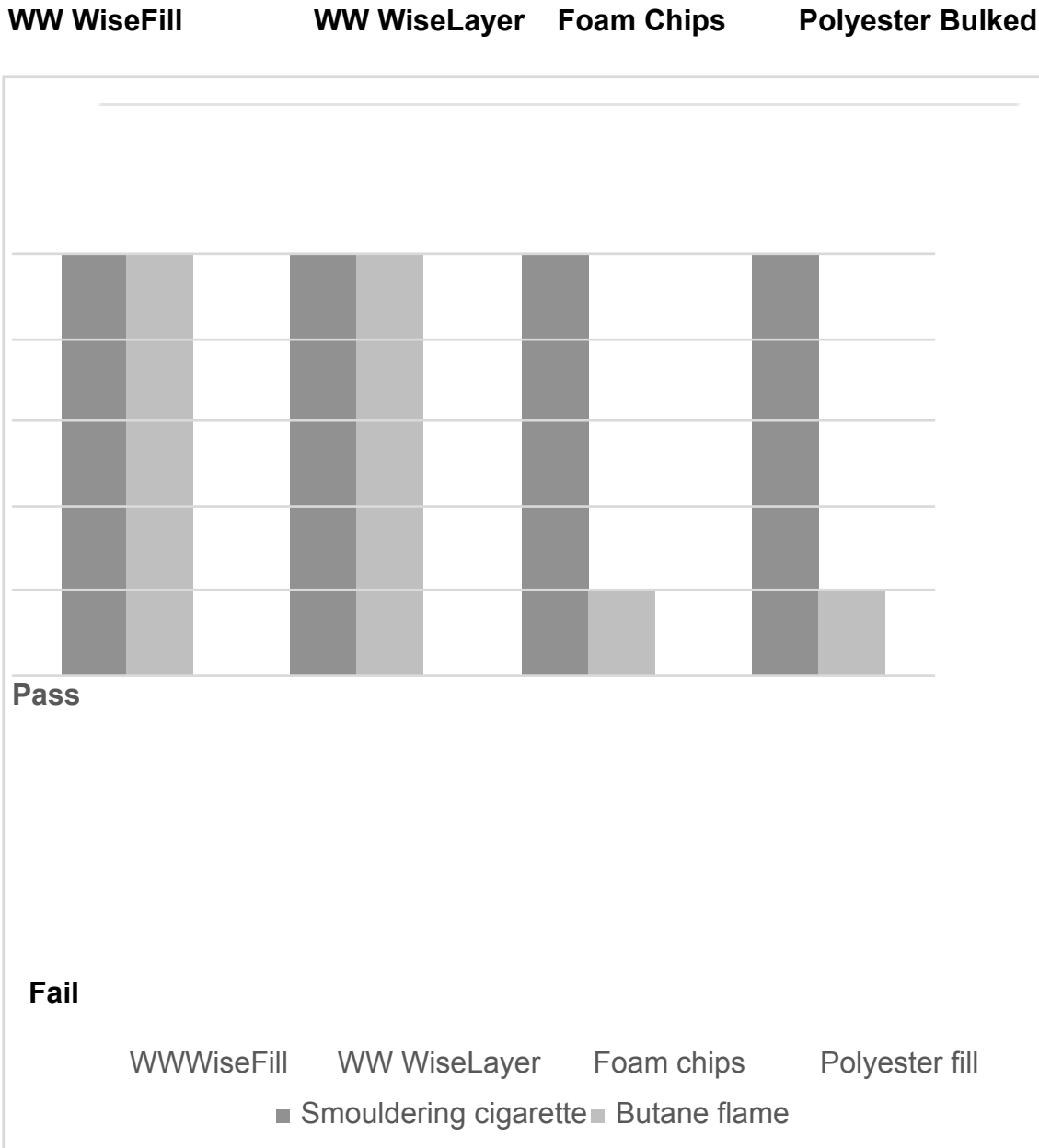
(Note that New Zealand does not have regulations regarding furniture flammability: there is a Product Safety Policy.)

Practical aspects of test

Fill is packed to 75 mm thickness, under 100% flame retardant polyester, the objective being to achieve comparable thickness. Mass observed in both seat and back differed slightly among fill types.

All specimens conditioned 23±2 °C, 50±5% RH prior to testing: some slight differences in ambient conditions during tests were noted (22.6 °C, 68.7% RH (WW WiseLayer, foam chips); 20.0, °C, 66.1% RH (WW WiseFill); 20.5 °C, 62.2% RH (polyester fill)).





Results and interpretation

Wisewool WiseFill and Wisewool WiseLayer passed both tests (Parts 1 and 2).

Foam chips and polyester fill passed the cigarette smouldering test (Part 1) but failed Part 2.

These results show superior performance of the wool fill products in relation to ignition and flaming.