

2007059 Report – White aprons 15th July 2020

FAO: Sandra Wildman, Polyco Healthline

Samples identified as 'White aprons' were submitted 15th July 2020 for the following testing:

1. Tensile strength (machine and transverse directions) according to BS EN ISO 527-3:1996 ♦
2. Dart impact resistance according to BS EN ISO 7665-1:2004 ♦

Samples were tested as received, in an unused state, on 15th July 2020. Testing took place at the Polyco Healthline Technology Centre, South Fen Road, Bourne, PE10 0DN only.

The results in this report relate only to the sample items tested by the Polyco Healthline Technology Centre.

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Written by: Benjamin Killick – Senior Scientist

Conclusion:

Test	Result
Tensile strength (median) – Machine direction ♦	30.2 MPa
Tensile strength (median) – Transverse direction ♦	13.26 MPa
Dart impact failure mass ♦	33 g

Tests marked ♦ and any opinions and interpretations fall outside the UKAS schedule of accreditation for the laboratory.

Sample details

Sample name and sample description:	White aprons (disposable)	
Sample code:	Unknown	
Size:	Unknown	
Batch number:	Unknown	
Quantity submitted:	10	



Results

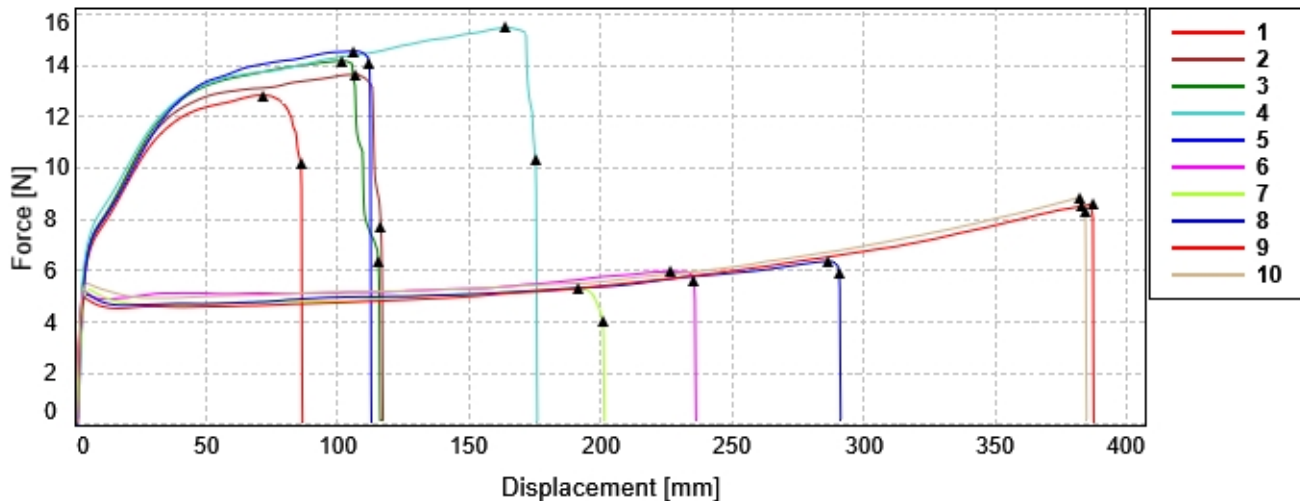
As requested by the customer, no pre-test conditioning was carried out for either of the tests.

1. Tensile strength (machine and transverse directions) according to BS EN ISO 527-3:1996 ♦

Direction: Machine (Number of specimens: 5)						
	Thickness [mm]	Maximum Load [N]	Tensile strength [MPa]	Displacement at Break point [mm]	Direction	Nominal strain (%) [crosshead displacement] [mm]
1	0.017	12.84	30.20	85.85	Machine	114
2	0.017	13.65	32.11	116.35	Machine	155
3	0.019	14.17	29.82	115.35	Machine	154
4	0.018	15.47	34.39	175.02	Machine	233
5	0.020	14.56	29.11	112.02	Machine	149
Median	0.018	14.17	30.20	115.35		154
Standard deviation	0.001	0.986	2.135	32.740		43.653
Minimum	0.017	12.84	29.11	85.85		114

Direction: Transverse (Number of specimens: 5)						
	Thickness [mm]	Maximum Load [N]	Tensile strength [MPa]	Displacement at Break point [mm]	Direction	Nominal strain (%) [crosshead displacement] [mm]
6	0.018	5.97	13.26	235.35	Transverse	314
7	0.020	5.31	10.62	200.52	Transverse	267
8	0.020	6.36	12.72	290.35	Transverse	387
9	0.017	8.61	20.02	386.68	Transverse	516
10	0.018	8.85	19.66	383.68	Transverse	512
Median	0.018	6.36	13.26	290.35		387
Standard deviation	0.001	1.606	4.300	84.682		112.909
Minimum	0.017	5.31	10.62	200.52		267

ISO 527-3 Maximum load, tensile strength, and extension at break



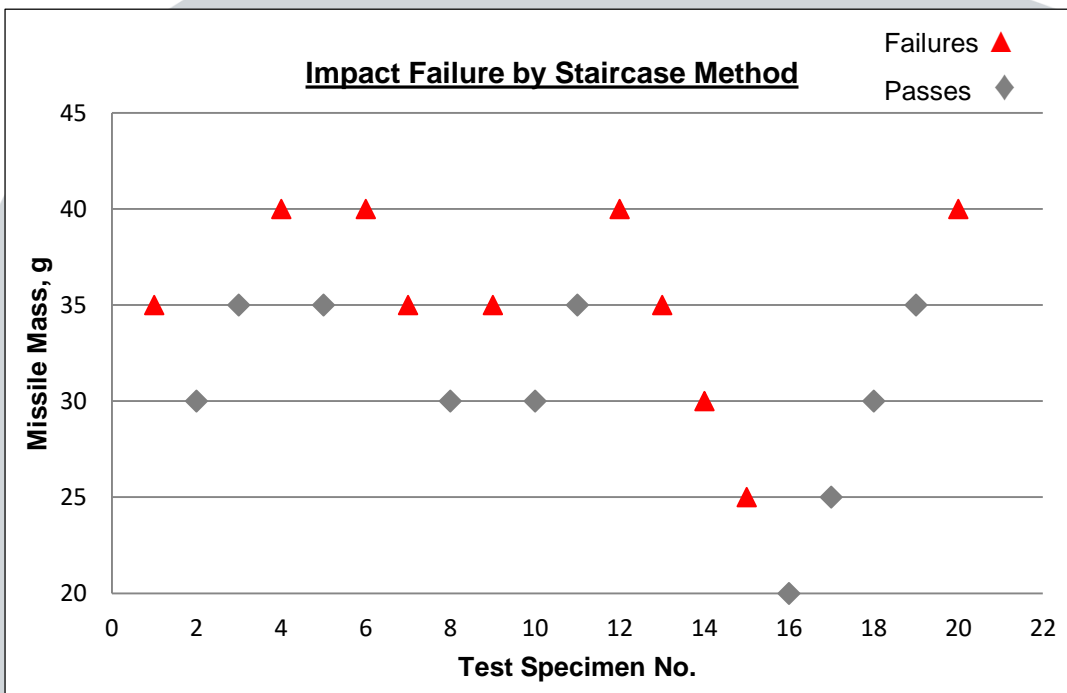
Authorised by:
David Langridge – Head of Technical

D. Langridge



3. Dart impact resistance according to BS EN ISO 7665-1:2004 ♦

Missile Mass (g)	No. failures per missile mass (n_i)	No. mass Increments(z_i)	$n_i z_i$
25	1	0	0
30	1	1	1
35	4	2	8
40	4	3	12
Total (N)	10	Total (A)	21
Impact Failure Mass, g (M_f)			33



*** END OF REPORT ***