eurofins | Modern Testing Services

Our Ref: LAS/RM 26 March 2024

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Abitex SRL
Via E. Fermi 7/9/11
Cadoneghe
PD
Italy
35010 Contact: Matteo Bortolossi

DATE RECEIVED	:	19 MARCH 2024
DATE TESTED	:	26 MARCH 2024
QUALITY REFERENCE	:	MAGNUM BIO BASE
FABRIC SUPPLIER	:	ABITEX SRL
REPUTED FIBRE CONTENT	:	49% STANDARD PVC, 31% BIO-BASED PVC,
	:	19% TENCEL, 1% PU/ POLYCARBONATE
COLOUR / DESIGN	:	02035 001
FABRIC DESCRIPTION	:	WOVEN
END USE	:	UPHOLSTERY
ORDER NUMBER	:	9/11

REQUEST: BS7176:2007 + A1:2011 Specification for resistance to ignition of upholstered furniture for non-domestic seating by testing composites – Table 1: Medium Hazard Use

RESULT: Meets the flammability performance requirements of Table 1 for Medium Hazard Use

R. MASKILL
FLAMMABILITY TECHNOLOGIST

L. SMITH
QUALITY COORDINATOR

UKAS TESTING
1428

BS 7176:2007 + A1:2011 Specification for resistance to ignition of upholstered furniture for non-domestic seating by testing composites

BS7176:2007 +A1:2011 specifies flammability performance requirements for composites comprising cover fabric and filling material(s) and includes additional requirements in clause 4.1.2 relating to the flammability behavior of the filling materials used. The filling materials which will be used in the final article are not always known to the fabric supplier and therefore nominal filling materials are used for the purpose of testing which may not necessarily represent the final composite. All filling materials supplied for the purpose of testing cover fabrics comply with the relevant requirements of clause 4.1.2.

Clause 4.1.1 requires that testing is carried out in accordance with the frequency stated in clause 5. No information was provided by the client regarding the lot size or frequency of testing.

According to Table 1, composites for Medium Hazard end-use shall meet the requirements of BSEN 1021-1:2006 (cigarette ignition source), BSEN 1021-2:2006 (match-equivalent flame) and BS 5852:2006 Clause 11 (ignition source crib 5).

Pre-treatment:

In accordance with clause 4.2, all fabrics which have been chemically treated to reduce their ignitability are subjected to the water soaking and drying procedures specified in BS 5852:2006 Annex E prior to being conditioned. Such pre-treatment is not necessary for materials which are formulated to be or are inherently flame-retarded.

Pre-treatment applied: None (tested in 'as received' condition)

Conditioning

After any pre-treatment given but prior to testing, the test specimens were subjected to conditioning for at least 72 hours in ambient indoor conditions followed by a minimum of 24 hours at a temperature of (23± 2°C) and relative humidity of (50±5%).

Test results

The following test results relate only to the ignitability of the combination of materials under the particular conditions of test; they are not intended as a means of assessing the full potential fire hazard of the materials in use. They also only relate to the materials tested. They do not guarantee to represent the performance of production materials.

Filling material used: As agreed with the client, a combustion modified high resilience foam infill of approximately 35 kg/m³ was used.

(i) BS EN 1021-1:2006 Furniture - Assessment of the ignitability of upholstered furniture – Part I. Ignition Source: Smouldering cigarette.

Test	Observations	Outcome
1	No flaming or progressive smouldering observed	NI (Non-ignition)
2	No flaming or progressive smouldering observed	NI (Non-ignition)

(ii) BS EN 1021-2:2006 Furniture - Assessment of the ignitability of upholstered furniture – Part 2. Ignition Source Match flame equivalent.

Duration of flame application: 15 seconds

Test	Observations	Outcome
1	Duration of flaming: 1 sec No progressive smouldering observed	NI (Non-ignition)
2	Duration of flaming: 2 secs No progressive smouldering observed	NI (Non-ignition)
3	Duration of flaming: 2 secs No progressive smouldering observed	NI (Non-ignition)

(iii) BS 5852:2006. Methods of Test for the Assessment of the ignitability of upholstered seating by smouldering and flaming ignition sources.

Tests were made using ignition source 5.

The following test results relate only to the ignitability of the combination of upholstery composites (BS5852: 2006, Clause 11) under the particular conditions of test stated, they are not intended as a means of assessing the full potential fire hazard of the materials in use. They also only relate to the materials tested. They do not guarantee to represent the performance of production materials.

Test	Observations	Outcome
1	Flaming ceased within 10 minutes of ignition No progressive smouldering observed Duration of flaming: 6/49 min/secs	NI (Non-ignition)
2	Flaming ceased within 10 minutes of ignition No progressive smouldering observed Duration of flaming: 6/07 min/secs	NI (Non-ignition)

Comments

When tested as described above the sample is assessed as meeting the flammability performance requirements of Table 1 for Medium Hazard end-uses.

Decision rules

The decision rule applicable to statements of conformity relating to the test(s) carried out is simple acceptance based on the measured test results not falling within a range either side of a specified limit that is equal to the uncertainty of measurement for the parameter measured (based on 95% confidence levels). In all other regards, the decision rule is based on simple acceptance predicated upon the conditions of testing falling within the criteria for test set out in the test method with a conformance probability of 95%. The risk of false accept or false reject is therefore not greater than 2.5%.

Uncertainty of measurement:	Timings	±0.4s
	Dimensions	±0.5mm