

ISO 7176-16 Wheelchairs – Part 16

Resistance to ignition of postural support devices.

Test report for:
PDG Bentley Manual wheelchair backrest
seat fabric

TEST DOCUMENTS
ISO 7176-16

LABORATORY REFERENCE
492106-1

21st May 2014



TEST REPORT

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Job no: 492106-1

PRODUCT

Name and/or Model No

Product Design Group wheelchair seating upholstery – Bentley manual wheelchair

Serial no(s) of test sample

n/a

Documents used in testing

ISO 7176-16 Wheelchairs – Part 16
(Resistance to ignition of postural support devices)

SUPPLIER

Name

Product Design Group Inc.

Address

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Canada V5X4N6

Telephone:

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Fax:

n/a

Contact person: Torr Brown

Order No: n/a

Order Date: n/a

TESTING AUTHORITY

NOVITATECH TEST LABORATORY
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Senior Test Technician
(Authorised signatory)

Checked: Richie Petronio

Test Technician

Dates of testing period:

May 2014

Date of issue of this report:

21st May 2014



Test report in accordance with ISO 7176-16 Resistance to ignition

Materials tested: Fabric sample from PDG Bentley manual wheelchair (Seat backrest)

Method(s) of ignition used: Match flame equivalent

Ignition Source: As per ISO 7176-16 requirement

Seat back, test sample – Horizontal test

		Test 1	Test 2
Ignition time		20 sec	20 sec
I* or NI**		NI**	NI**
Observation , 120 s after removal of ignition source		Material self-extinguished, no progressive burning	Material self-extinguished, no progressive burning
Observation during cooling time		No smouldering or re-ignition of fabric, breach of surface fabric with no ignition of foam	No smouldering or re-ignition of fabric, breach of surface fabric with no ignition of foam
Dimensions of damage (mm)	Length of burn area	21 mm	19 mm
	Width of burn area	17 mm	22 mm
	Calculated burn area (mm ²)	357 mm ²	418 mm ²
Comments		Material surface smoldered after placement of ignition source, advancing to progressive smoldering while ignition source was in place. Material surface breached after approx. 15 sec. Sample self-extinguished with no smoldering or flaming after 30 sec. No re-ignition during or after the cooling period.	

Seat back, test sample – Vertical test

		Test 1	Test 2
Ignition time		20 sec	20 sec
I* or NI**		I*	I*
Observation , 120 s after removal of ignition source		Material self-extinguished, no progressive smoldering, minimal smoking of burn area	Material self-extinguished, no progressive smoldering, minimal smoking of burn area
Observation during cooling time		No smouldering or re-ignition of fabric or foam padding during the cooling period	No smouldering or re-ignition of fabric or foam padding during the cooling period
Dimensions of damage (mm)	Width of burn area (mm)	24 mm	26 mm
	Height of burn area (mm)	70 mm	66 mm
	Calculated burn area (mm ²)	1680 mm ²	1760 mm ²
Comments		Material surface smoldered after placement of ignition source, advancing to progressive smoldering and mild flaming while ignition source was in place. Breach of material surface before removal of flame. Sample self-extinguished with no smoldering or flaming after 30 sec. No re-ignition during or after the cooling period.	

*I = Ignition occurred, **NI = Ignition did not occur
W = Width of damage, measured on horizontal and vertical test surfaces (mm)
H = Height of damage, measured on vertical test surface (mm)
L = Length of damage, measured on the horizontal test surface (mm)

Remarks:

Seat back: Horizontal surface



Seat back: Vertical surface



The above results relate only to the ignitability of the combination of materials of the postural support devices under the particular conditions of the test.
They are not intended as a means of assessing the full potential hazard of the complete wheelchair.
The result should not be considered as an indicative assessment of the ignitability of the fabric, glues or foam in isolation or in cases where the upholstery is worn, torn or damaged.
Resistance to ignition can change with use, ageing and/or cleaning as well as the environment in which the product is used.
WW. End of remarks -----

NOTES

- 1U₉₅ Uncertainty of measurements where not specified: linear ±1mm, angular +- 30', force, mass ±1%, temperature ±1°C, cycles ±1 count. This means the true measurement is within the stated tolerances at least ninety five times in one hundred
- 2 All testing was carried out in a controlled environment laboratory using methods set out in the Standards documents, all deviations and additions to the Standards' methods are noted in remarks.
- 3 All instruments either carried valid calibration certificates throughout the test period or were checked against traceable Standards before and after use.
- 4 NovitaTech has no control over the selection of test samples. Any extension of the findings of this report to cover production items must be based on production being truly represented by the sample(s).
- 5 Any non-conformances are indicated in red.

END OF REPORT