NSW GOVERNMENT | Trade & Investment Mine Safety

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30th of April, 2012

M.S.T.C. TEST REPORT T12-00226/0001

Company:	Rivers Carbon Technologies Ltd.	
Sample Description:	Black joining band material	
Intended Use:	Joining band for non-metallic ducting	[Refer *MDG3006 MTR8*, Section 4.3]
Sample No.:	T12-00226/0001	

SUMMARY

The material **complied** with the Electrical Resistance requirements of *MDG3006 MTR8, 4.3 a)*.

The Oxygen Index of the material was determined as specified by *MDG3006 MTR8, 4.3 b)*.

The material **complied** with the Fire Resistance requirements of *MDG3006 MTR8, 4.3 d)*.

Analysed by: Checked by:

Authorised by:

G. Slater
Manager
Mine Safety Technology Centre

NATA
WORLD RECOGNISED ACCREDITATION
Accredited for compliance with ISO/IEC 17025
Accreditation No. 2325
Endorsed tests indicated by logo on test page

ELECTRICAL RESISTANCE (SURFACE)

Sample:

Black joining band material

Results:

Test Piece	Electrical Resistance (MΩ)	
	Upper Surface	Lower Surface
1	0.33	0.44
2	0.61	0.53
Mean	**0.47 MΩ**	**0.49 MΩ**

Notes:

a) Conditioned at 23°C and 50% relative humidity for > 2 hours in an unrestrained state.
b) Tested at ambient temperature of 22°C with 48% relative humidity.
c) Sample sizes: 300 mm x 300 mm.
d) No conductivity solution applied between electrodes and sample surface.

Method of Analysis:

NCB Specification 245:1985 (Fire and Electrical Resistance Properties of Supported and Unsupported Sheeting) – Appendix 5.

Any variation from Standard/Test Method:

Conditioned and tested at a relative humidity lower than the range specified for the test.

Requirements:

The mean value for the Electrical Resistance on both upper and lower surfaces of the material shall not be greater than 300 MΩ (300 x 10^6 ohms).

Sample Status:

The material **complied** with the requirements for Electrical Resistance of *MDG3006 MTR8, 4.3 a).*

OXYGEN INDEX

Sample:

Black joining band material

Results:

	% O_2
Oxygen Index	31.9

Notes:

a) Oxygen concentrations are percentage by volume.
b) Propagating ignition [*ISO4589-2:1996* ignition 'Procedure B']
c) Sample size: 140 mm x 50 mm [*ISO4589-2:1996* test specimen form: V (– flexible sheet)]
d) The result relate only to the behaviour of the test specimens under the conditions of the test and these results shall not be used to infer the fire hazards of the materials in other forms or under other fire conditions.
e) Tested in ambient 22°C, 48% relative humidity.
f) Samples conditioned at 23°C and 50% relative humidity for >88hrs. Each test piece was housed in the conditioning enclosure until it was required for testing.

Method of Analysis:

ISO 4589-2:1996(E) Determination of Burning Behaviour by Oxygen Index – Part 2 Ambient-temperature test.

Any variation from Standard/Test Method:

No.

Sample Status:

The oxygen index of the sample was determined as specified by *MDG3006 MTR8, Section 4.3 b).*

FIRE RESISTANCE

Sample:
Black joining band material

Results:

Test	Persistence of Flame (s)	Persistence of After Glow (s)	Extent of Charring (mm)
1	0	0	0
2	0	0	0
3	0	0	0
4	0	0	0
5	0	0	0
6	0	0	0
Mean	**0 s**	**0 s**	**-**

Notes:
a) These test results on their own do not indicate the fire hazard of the material or product under actual fire conditions and consequently should not be applied to the assessment of fire hazard without taking into account supportive information.
b) Sample dimensions: 75 mm wide x 300 mm long
c) Mean bunsen flame temperature: 1050°C.
d) 20 second flame application time, as specified in *MDG3006 MTR8, 4.3 d).*

Method of Analysis:
AS 1180.10B-1982: Methods of testing conveyor and elevator belting – Method 10: Determination of ignitability and flame propagation characteristics of conveyor belting.

Any variation from Standard/Test Method:
- The Analite No T203 burner replaced with a Bunsen type burner in accordance with the annex to ISO340.
- As specified in Clause 4.3d) of *MDG3006 MTR8*, a 20 second flame application was applied.

Requirements:
The average duration of flaming and glowing shall not exceed 30 seconds.

Sample Status:
The material **complied** with the Fire Resistance requirements of *MDG3006 MTR8, 4.3 d).*