

Test Report

British Approvals Service for Cables



Report No	243/7602894	This Report consists of 6 pages
Client	BASEC on behalf of National Cables Industry P.O. Box 27472 Al Dhaid Road, Al Sajja Ind. Area Sharjah United Arab Emirates	
BASEC Ref No	D4TTB558 dated 12 October 2010	
Items tested	1 sample of Electric Cable	
Specification	BS 5467:1997 & A3:2008 Including Amendments 1496, 15645 & A3	
Results	The sample submitted complied with the requirements of the specification for the tests which were requested.	
Tested by	I Telling <i>I Telling</i>	Technician
Authorized by	I McGuinness <i>I McGuinness</i>	Laboratory Manager
Issue Date	6 November 2010	



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TESTING OF CABLE MANUFACTURED TO BS 5467:1997 TABLE 4**1 core****Conductor size:** 630.0sq.mm**F100 TESTS****ASSESSMENT**

Marking Elements a,b,c Embossed
ELECTRIC CABLE 600/1000V BS 5467 PASS

Marking on 2 line(s) Character size 7mm. Repeat intervals (a,b,c):- 480 mm PASS

Marking Elements d,e
Identification of manufacturer Embossed
NATIONAL CABLES INDUSTRY U.A.E. - 1x630mm² CU/XLPE/AWA/PVC 2010 PASS

Repeat interval:- 470mm PASS

Construction

Sheath colour Black PASS

Extruded bedding PASS

Conductor:-Compacted circular stranded plain annealed Cu Core lay up RH PASS

Armoured Galvanised steel wire LH Lay/Size: 2.03mm PASS

Voltage Tests:-

Complete Cable @ 3.5 kV PASS

Thickness of oversheath Mean N/A Minimum 1.94mm PASS

Thickness of extruded bedding Mean N/A Minimum 1.66mm PASS

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Date job raised:- 13/10/10	Testing completed:- 04/11/10	Checked by:- I McGuinness

N/A = Not Applicable

N/R = Not Requested

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TESTING OF CABLE MANUFACTURED TO BS 5467:1997 TABLE 4

1 core

Conductor size: 630.0 sq.mm

F100 TESTS

ASSESSMENT

Tests on individual cores

Core I.D and sequence	Black	PASS
Indelibility	P	PASS
Class of conductor	2	PASS
No. of Wires	61	PASS
Conductor resistance (ohms/km)	0.0238	PASS
Insulation Thickness		
Mean (mm)	3.28	PASS
Min (mm)	3.16	PASS

Overall assessment F100 tests:- PASS

F50 Tests

Heat shock test

Sheath PASS

Overall assessment F50 tests:- PASS

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TESTING OF CABLE MANUFACTURED TO BS 5467:1997 TABLE 4

1 core

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F25 TESTS

ASSESSMENT

Flame Test on complete cable

PASS

Tensile tests on Sheath

Compound	9
Tensile strength unaged (N/mm ²)	21.2
Elongation at Break-unaged (%)	258
Tensile strength aged 7 days Air @ 100 C	21.0
% Var Tensile strength aged 7 days in air @ 100 C	-1
Elongation @ break aged 7 days Air @ 100 C	257
% Var.Elongation aged 7 days Air @ 100 C	-1
Compatibility Tensile Strength after ageing	21.4
Compatibility Elongation @ break after ageing	266
Compatibility % Var Tensile Strength	1
Compatibility % Var Elongation at break	3

Assessment of tensile tests on sheath

PASS

Tensile tests on Cores

Compound	GP8 Black
Tensile strength unaged (N/mm ²)	26.3
Elongation at Break-unaged (%)	560
% Var Tensile strength, aged 7 days @ 135 C air	-11
% Var.Elongation at break, aged 7 days @ 135 C air	-12
Compatibility Tensile Strength after ageing	22.9
Compatibility Elongation @ break after ageing	532
Compatibility % Var Tensile Strength	-13
Compatibility % Var Elongation at break	-5

Assessment of tensile tests on cores

PASS

Overall assessment F25 tests:- PASS

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TESTING OF CABLE MANUFACTURED TO BS 5467:1997 TABLE 4

1 core

Conductor size: 630 sq.mm

F5 TESTS

ASSESSMENT

Tests on Sheath or complete cable

Compound	9 BLACK	
Insulation resistance constant @ 20 C Mohms.km	295.7	PASS
Cold elongation @ -15 C		PASS
Cold Impact @ -15 C		PASS
Hot pressure %	19	PASS
Loss of Mass (mg/cm ²)	0.16	PASS

Tests on Bedding

Compound	POLY SYNTH BLACK	
Tensile strength (N/mm ²)	22.2	PASS
Elongation at Break (%)	273	PASS

Tests on individual cores

Compound	GP8	
CORE COLOURS	Black	
Hot set test Max Elongation %	70	PASS
Hot set test Permanent Elongation %	10	PASS
Water absorption (Gravimetric) mg/cm ²	0.16	PASS
Insulation resistance constant @ 90 C Mohms.km	5.39	PASS
% Shrinkage of cores after test 1hr @ 130 C	2.5	PASS

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1 core

Conductor size: 630 sq.mm

F5 TESTS

ASSESSMENT

Tests on armour:-

Armour resistance (ohms/km):	0.137	PASS
Armour wrapping test:		N/A
Mass of Zinc coating on Armour (g/m ²):		N/A
Tensile test (Aluminium Wire) (N/mm ²)	193.7	PASS

Overall assessment F5 tests:- PASS

The sample complied with the requirements of the standard

Note: one specimen used for thickness measurements

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