



## Type Test Report

Customer name	MEDITERRANEAN CABLES COMPANY S.A.L
Customer address	South Lebanon – Saida – El Ghazieh

Date of item's reception	03. 07. 2020
Date or period of tests	03-08. 07. 2020
Date of report issue	09. 07. 2020

Product description	Copper Conductor
Manufacturer, brand name or trademark	MEDITERRANEAN CABLES
Reference, model	NYM 4 × 6 mm <sup>2</sup> , NYM 4 × 10 mm <sup>2</sup> , NYM 3 × 35 mm <sup>2</sup>
Product category	Cables

Testing according to the requirements of:	IEC 60228 / IEC 60502-1
General comments:	Conform

Tested by (+ Signature)	Eng. Ahmad HASSAN Electrical laboratory unit head
Verified by (+ Signature)	Eng. Bilal Hussein Electrical laboratory head
Approved by (+ Signature)	Dr. Imad Hage Chehade

Note: \* Results relate only to the item tested.

\* This test report shall not be reproduced, except in full, without the written approval of the Industrial Research institute.





Norm	Result				
IEC 60228 &   IEC 60502-1	Cable designation	Parameter	Limit Value (Norm)	Measured Value	Code N°
	4×6 mm <sup>2</sup>	Conductor section (mm <sup>2</sup> )	6	6	267-9
		Number of wires	7	7	267-9
		Nominal diameter of wires (mm)	1,04	1,04	267-9
		Conductor exterior diameter (mm)	2,95	3,0	267-9
		PVC insulation thickness (mm)	1	1	267-9
		Outer Diameter	---	16,3	267-9
		PVC outer sheath thickness	1,8	1,8	267-9
		Weight (Kg/Km)	---	510	267-9
		Electrical resistance (Ω/Km)	3,08	3,1	267-9

  
  
**IRI** Technology & Development  
 Director  
 LEBANON  
 INDUSTRIAL RESEARCH INSTITUTE





Norm	Result				
	Cable designation	Parameter	Limit Value (Norm)	Measured Value	Code N°
IEC 60228 &   IEC 60502-1	4×10 mm <sup>2</sup>	Conductor section (mm <sup>2</sup> )	10	10	267-9
		Number of wires	7	7	267-9
		Nominal diameter of wires (mm)	1,35	1,35	267-9
		Conductor exterior diameter (mm)	3,82	3,90	267-9
		PVC insulation thickness	1	1	267-9
		Outer Diameter	---	21,6	267-9
		PVC outer sheath thickness	1,8	1,78	267-9
		Weight (Kg/Km)	---	740	267-9
		Electrical resistance (Ω/Km)	1,83	1,84	267-9

  
  
H. H. CHEHADE Ph.D  
Technology & Development  
Director  
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Norm	Result				
	Cable designation	Parameter	Limit Value (Norm)	Measured Value	Code N°
IEC 60228 & IEC 60502-1	3×35 mm <sup>2</sup>	Conductor section (mm <sup>2</sup> )	35	35	267-9
		Number of wires	7	7	267-9
		Nominal diameter of wires (mm)	2,5	2,51	267-9
		Conductor exterior diameter (mm)	7,5	7,45	267-9
		PVC insulation thickness	1,2	1,2	267-9
		Outer Diameter	---	25,8	267-9
		PVC outer sheath thickness	1,8	1,78	267-9
		Weight (Kg/Km)	---	1515	267-9
		Electrical resistance (Ω/Km)	0,524	0,525	267-9

This report, modified on 14/07/2020, cancels and replaces the previous report issued under the same date and number, amended information is identified by a straight line in the margin.





## Type Test Report

Customer name	MEDITERRANEAN CABLES COMPANY S.A.L
Customer address	South Lebanon – Saida – El Ghazieh
Date of item's reception	23. 09. 2019
Date or period of tests	23 – 24. 09. 2019
Date of report issue	26. 09. 2019
Product description	Cables (Hard Drawn Copper)
Manufacturer, brand name or trademark	MEDITERRANEAN CABLES
Reference, model	CU NU 25 (HDC)
Product category	Cables
Testing according to the requirements of:	DIN 48201/1 & IEC 60228
General comments:	Conform
Tested by (+ Signature)	Eng. Ahmad HASSAN Electrical laboratory unit head
Verified by (+ Signature)	Eng. Bilal Hussein Electrical laboratory head
Approved by (+ Signature)	Dr. Imad Hage Chehade  Imad HAGE CHEHADE Ph.D Technology & Development Director

Note: \* Results relate only to the item tested.

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Norm	Result				
DIN 48201/1	Cable designation	Parameter	Limit Value (Norm)	Measured Value	Code N°
	CU NU 25 (HDC)	Cable section (mm <sup>2</sup> )	24,25	24,24	267-4
		Number of wires	7	7	267-4
		Nominal diameter of wires (mm)	2,10	2,10	267-4
		Exterior diameter (mm)	6,30	6,31	267-4
		Weight (Kg/Km)	218	218,5	267-4
IEC 60228	CU NU 25 (HDC)	Electrical resistance (Ω/Km)	0,727	0,740	267-4





Date: 26/08/2015

Report

No: 5221/1648/308849/2015

IRI Bldg. - Lebanese University Campus Hadath (Baabda) - Lebanon P.O. Box: 11-2806 Beirut Tel/Fax: +961 5 467831- Mobile: +961 3 286340 e-mail: info@iri.org.lb - http://www.iri.org.lb



CLIENT

Name: MESSRS MEDITERRANEAN CABLES CO. S.A.L. SAIDA - SOUTH LEBANON

SAMPLE

Received as: Aluminium Wire (9.5 mm)"

Reference: Your letter dated on 12/08/2015

Received on: 13/08/2015

Results

Testing duration: From 14/08/2015 to 24/08/2015 Unless otherwise specified, the sampling was done by the client.

CHEMICAL ANALYSIS

IRI Code No

267 - 28

Chemical Composition:\*

- Iron, as Fe (%)	0.02
- Silicon, as Si (%)	0.08
- Manganese, as Mn (%)	Less than 0.01
- Zinc, as Zn (%)	Less than 0.01
- Nickel, as Ni (%)	Less than 0.01
- Chromium, as Cr (%)	Less than 0.01
- Lead, as Pb (%)	Less than 0.01
- Copper, as Cu (%)	Less than 0.01
- Titanium, as Ti (%)	Less than 0.01
- Tin, as Sn (%)	Less than 0.01
- Vanadium, as V (%)	Less than 0.01
- Bismuth, as Bi (%)	Less than 0.01
- Aluminum, as Al (%)	More than 99.8

\* Reference Method: Optical Emission Spectrometer.

Results relate only to the sample tested.

MZ/ny

Dr. Joseph Matta

Division Head Laboratories



Nadia Khoury

Applied Research & Testing Director

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# INDUSTRIAL RESEARCH INSTITUTE

Date: 26/08/2015

## Report

No: 5221/1648/308849/2015

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CLIENT

Name: **MESSRS MEDITERRANEAN CABLES CO. S.A.L.**  
**SAIDA - SOUTH LEBANON**

Reference: Your letter dated on 12/08/2015

SAMPLE

Received as:  
**"Aluminium Wire (9.5 mm)"**

Received on: 13/08/2015

## Results

Testing duration: From 14/08/2015 to 14/08/2015 Unless otherwise specified, the sampling was done by the client.

### Tensile Testing NF EN 10002-1 IRI Code No. (403 - 7A)

<u>Your sample identification</u>	<u>Nominal Diameter (mm)</u>	<u>Yield strength at 0.2% offset (MPa)</u>	<u>Tensile Strength (Mpa)</u>	<u>Elongation (%)</u>
Aluminium	9.5	65	86	32

Results relate only to the sample tested.

MT/ny

2/2

Dr. Joseph Matta  
for *J. Beuly*  
Division Head  
Laboratories



Nadia Khoury  
Applied Research & Testing  
Director

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**Type Test Report**

<b>Customer name</b>	MEDITERRANEAN CABLES COMPANY S.A.L
<b>Customer address</b>	South Lebanon -- Saida -- Zahrani - Teffahta

<b>Date of item's reception</b>	07. 07. 2015
<b>Date or period of tests</b>	14. 07. 2015
<b>Date of report issue</b>	16. 07. 2015

<b>Product description</b>	Cable
<b>Manufacturer, brand name or trademark</b>	MEDITERRANEAN CABLES
<b>Reference, model</b>	ACRS 490/65 mm <sup>2</sup>
<b>Product category</b>	Aluminium conductors steel reinforced

<b>Testing according to the requirements of:</b>	DIN 48204 / IEC 61089
<b>General comments:</b>	Conform

<b>Tested by (+ Signature)</b>	Eng. Ahmad HASSAN Electrical laboratory unit head
<b>Verified by (+ Signature)</b>	Eng. Bilal Hussein Electrical laboratory head
<b>Approved by (+ Signature)</b>	Dr. Imad Hage Chehade  Imad HAGE CHEHADE Ph.D. Technology & Development Director

Notes: \* Results relate only to the item tested.

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Norm	Result				
<b>DIN 48204 / IEC 61089</b>	Cable designation	Parameters	Value (Norm)	Measured Value	Code №
	ACSR 490/65 mm <sup>2</sup>	No. * Dia. Of Al. wires	54 * 3,40 mm	54 * 3,40 mm	267-9
		No. * Dia. Of steel wires	7 * 3,40 mm	7 * 3,41 mm	267-9
		Outer Diameter	30,6 mm	30,62 mm	267-9
		Electrical resistance @ 20°C	0,0588 Ω/Km	0,059 Ω/Km	267-9
		Total Weight without grease	1866 Kg/Km	1867 Kg/Km	267-9



Imed HAGE CHEMADE Ph.D.  
Technology & Development





**Type Test Report**

Customer name	MEDITERRANEAN CABLES COMPANY S.A.L
Customer address	South Lebanon – Saida – El Ghazieh

Date of item's reception	09. 10. 2017
Date or period of tests	10-16. 10. 2017
Date of report issue	17. 10. 2017

Product description	Cables (Aluminum conductors)
Manufacturer, brand name or trademark	MEDITERRANEAN CABLES
Reference, model	16 mm <sup>2</sup> ; 25 mm <sup>2</sup> ; 50 mm <sup>2</sup> ; 54,6 mm <sup>2</sup> ; 70 mm <sup>2</sup> ; 150 mm <sup>2</sup>
, Product category	Cables

Testing according to the requirements of:	NF C 33-209
General comments:	Conform

Tested by (+ Signature)	Eng. Ahmad HASSAN Electrical laboratory unit head	
Verified by (+ Signature)	Eng. Bilal Hussein Electrical laboratory head	
Approved by (+ Signature)	Dr. Imad Hage Chehade	 Imad HAGE CHEHADE Ph.D Technology & Development Director

Note: \* Results relate only to the item tested.

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Norm	Code N°	Result				
		Cable designation	Parameter	Limit Value (Norm)	Measured Value	Code N°
NF C 33-209		16 mm <sup>2</sup>	Cable section (mm <sup>2</sup> )	16	16,07	267-2
			Number of wires	7	7	267-2
			Nominal diameter of wires (mm)	4,6 < d < 5,1	5,0	267-2
			Exterior diameter (mm)	7,0 < D < 7,8	7,30	267-2
			Electrical resistance (Ω/Km)	< 1,91	1,7	267-2
		25 mm <sup>2</sup>	Cable section (mm <sup>2</sup> )	25	25,41	267-2
			Number of wires	7	7	267-2
			Nominal diameter of wires (mm)	5,8 < d < 6,3	6,0	267-2
			Exterior diameter (mm)	8,6 < D < 9,4	8,9	267-2
			Electrical resistance (Ω/Km)	< 1,20	0,96	267-2


  
 Imad HAGE CHEHADE Ph.D  
 Technology & Development  
 Director



Norm	Code №	Result				
NF C 33-209	50 mm <sup>2</sup>	Cable designation	Parameter	Limit Value (Norm)	Measured Value	Code N°
			Cable section (mm <sup>2</sup> )	50	50,14	267-2
			Number of wires	7	7	267-2
			Nominal diameter of wires (mm)	7,9 < d < 8,4	8,38	267-2
			Exterior diameter (mm)	11,1 < D < 12,0	11,62	267-2
			Electrical resistance (Ω/Km)	< 0,641	0,55	267-2
	54,6 mm <sup>2</sup>		Cable section (mm <sup>2</sup> )	54,6	54,89	267-2
			Number of wires	7	7	267-2
			Nominal diameter of wires (mm)	9,2 < d < 9,6	9,43	267-2
			Exterior diameter (mm)	12,3 < D < 13,0	12,83	267-2
			Electrical resistance (Ω/Km)	< 0,63	0,53	267-2

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 Technology & Development  
 Director



Norm	Code №	Result				
		Cable designation	Parameter	Limit Value (Norm)	Measured Value	Code N°
NF C 33-209		70 mm <sup>2</sup>	Cable section (mm <sup>2</sup> )	70	68,5	267-2
			Number of wires	7	7	267-2
			Nominal diameter of wires (mm)	10 < d < 10,2	10,15	267-2
			Exterior diameter (mm)	12,9 < D < 13,6	13,4	267-2
			Electrical resistance (Ω/Km)	< 0,50	0,42	267-2
		150 mm <sup>2</sup>	Cable section (mm <sup>2</sup> )	150	150,86	267-2
			Number of wires	19	19	267-2
			Nominal diameter of wires (mm)	13,9 < d < 15,0	14,8	267-2
			Exterior diameter (mm)	17,3 < D < 18,6	19,2	267-2
			Electrical resistance (Ω/Km)	< 0,206	0,19	267-2



HAGE CHEHADE Ph.D  
Technology & Development  
Director





## Type Test Report

Customer name	وزارة الاقتصاد والتجارة - مديرية حماية المستهلك - دائرة قمع الغش	
Customer address	بيروت - لبنان	
Date of item's reception	02.02.2015	
Date or period of tests	From 02.02.2015 To 03.02.2015	
Date of report issue	03.02.2015	
Product description	كابلات كهربائية مسجلة تحت رقم ١٠٦/د	
Item reference (If any)		
Manufacturer, brand name or trademark	شركة البحر المتوسط للكابلات	Country of origin: لبنان
Reference, model	NYA / 2.5 mm <sup>2</sup> / 100 YDS	
Product category	CONDUCTORS OF INSULATED CABLES	
Testing according to the requirements of	IEC 60228	
Conformity	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	
General comments	Conform	
Tested by (+ Signature)	Eng. Fady MELHEM Assistant Unit Head	
Verified by (+ Signature)	Eng. Bilal Hussein Electrical Laboratory Head	
Approved by (+ Signature)	Dr. Inad Hage Chehade Technology & Development Director	 

Note: \* Results relate only to the item tested

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CONDUCTORS OF INSULATED CABLES  
IEC 60228

Clause	Requirement - Test	Result - Remark	Verdict <sup>1</sup>
3	Classification		P
		-Class 2 : Stranded conductors	P
4	Materials		P
		Plain or metal-coated annealed copper	P
5	Solid conductors and stranded conductors		P
	The wires shall all have the same nominal diameter	0.67 mm / wire	P
	Number of wires in each conductor	7	P

Cross sectional area	2.47 mm <sup>2</sup>
Length of the cable	99.74 Yard = 91.2 meter

Remarks	مسجلة في دائرة قمع الغش في بيروت تحت رقم د/١٠٦
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1- Test case verdict: P = Pass, F = Fail, N/A = Case not apply to the test object.

  
  
  
Imad HAGECHEHADE Ph.D  
Technology & Development  
Director







**Type Test Report**

Customer name	وزارة الاقتصاد والتجارة - مديرية حماية المستهلك - دائرة قمع الغش	
Customer address	بيروت - لبنان	
Date of item's reception	06.02.2015	
Date or period of tests	From 10.02.2015 To 12.02.2015	
Date of report issue	13.02.2015	
Product description	كابلات كهربائية مسجلة تحت رقم ١٢٣/د	
Item reference (if any)		
Manufacturer, brand name or trademark	Med cables	Country of origin: لبنان
Reference, model	NYMHY 2 X 2.5 mm <sup>2</sup>	
Product category	CONDUCTORS OF INSULATED CABLES	
Testing according to the requirements of	IEC 60228	
Conformity	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	
General comments	Conform	

Tested by (+ Signature)	Eng. Fady MELHEM Assistant Unit Head	
Verified by (+ Signature)	Eng. Bilal Hussein Electrical Laboratory Head	
Approved by (+ Signature)	Dr. Imad Hage Chehade	 Imad HAGE CHEHADE Ph.D Technology & Development Director

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