



DE  **ANGELI**
PRODOTTI

MISSION

De Angeli Prodotti aims to be the manufacturing leader - in terms of **quality and innovation** - of both insulated and enamelled wires for electromechanical applications and overhead power line conductors.



De Angeli Prodotti fosters **environmental sustainability**.
(rooftop photovoltaic system on Italian industrial buildings)

THE INNOVATION PATH:

2002

Starting CTC production

2003

Take over of French company TCH, today TCH-De Angeli

2004

High Termal Limit overhead conductors production

2005

Development of aluminium CTC

2010

Development of new products: Fibre-glass and Daglas insulated conductors

A dedicated workforce using the latest generation equipment and technology

Stock at the service of our clients

Copper equivalent total annual production capacity

Total Covered area

Total area

250

1000 mT

50.000 mT

55.000 m²

60.000 m²

Maximum importance is given to continuous **quality control** carried out by **expert staff** both in the production departments and in our laboratory.

UL OBMW2 E132925

SOCIO
LEAN ENTERPRISE CLUB
FONDAZIONE CUOA



OUR VALUES



PRODUCTION RANGE

- Enamelled round and flat copper conductors
- Enamelled round and flat aluminium conductors
- Copper Continuously Transposed Cables
- Aluminium Continuously Transposed Cables
- Insulated round and flat copper conductors
- Insulated round and flat aluminium conductors
- Bare overhead copper, aluminium and aluminium alloy conductors
- High Thermal Limit bare overhead conductors
- Fibre glass/mica insulated round and flat conductors
- Round, flat and shaped wires for mechanical and electrical applications
- Catenary lines for railway applications





ENAMELLED ROUND WIRES

ALUMINIUM

Adhexal H (180°C) IEC 317 - 15
 Adhexal 200 (200°C) IEC 317 - 25
 diameters (mm): 0,40 min - 5,00 max
 grade: 1 - 2

COPPER

Thervest H (180°C) IEC 60317- 8
 Thervest 200 (200°C) IEC 60317 -13
 diameters (mm): 0,25 min - 5,00 max
 grade: 1 - 2 - 3
 Bondvest H (180°C) IEC 317 - 37
 diameters (mm): 0,25 min - 2,00 max
 grade: 1 - 2

ALUMINIUM

Adhexal H (180°C) NEMA 1000 MW36 - A
 Adhexal 200 (200°C) NEMA 1000 MW36 - A
 thickness (mm): 1,40 min - 4,50 max
 width (mm): 4,00 min - 25,00 max
 grade: 1 - 2

COPPER

Thervest H (180°C) IEC 317 - 28
 Thervest 200 (200°C) IEC 317 - 29
 thickness (mm): 1,20 min - 5,00 max
 width (mm): 3,00 min - 25,00 max
 grade: 1 - 2

ENAMELLED FLAT CONDUCTORS



CTC CONTINUOUSLY TRANSPOSED CABLE

ALUMINIUM

width of flat (mm):
5,00 min - 12,50 max
thickness of flat (mm):
1,50 min - 3,25 max

COPPER

width of flat (mm):
9,80 min - 12,50 max
thickness of flat (mm):
1,20 min - 3,25 max

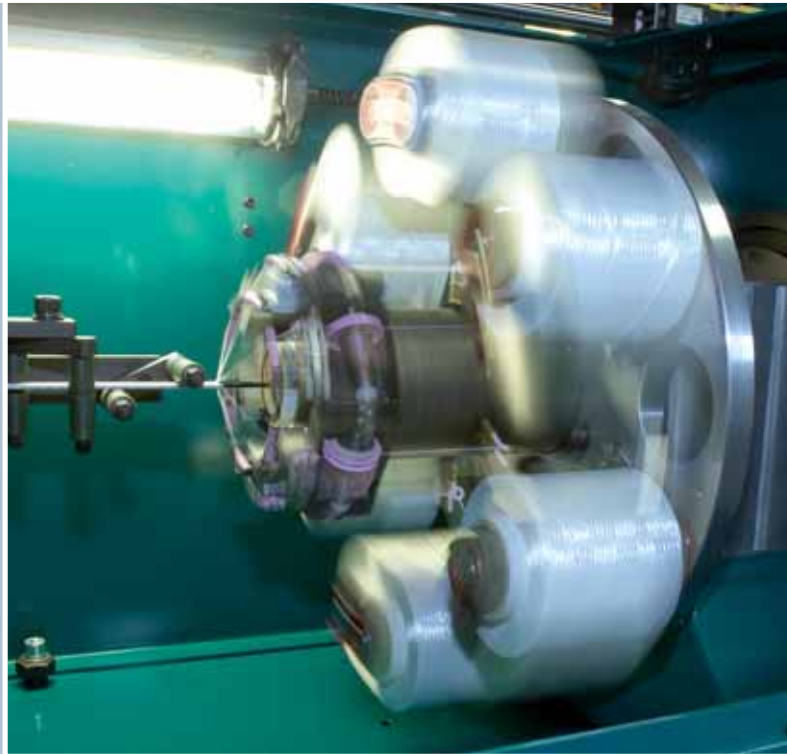
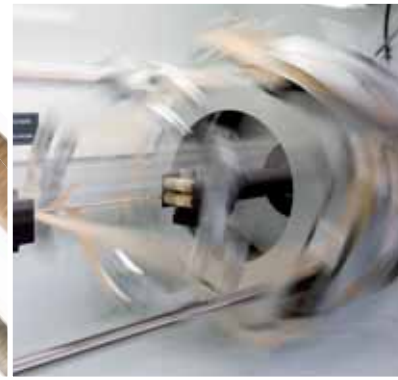
types of enamel: **Copper:** Forvest/Forvest-Epoxy/Forvest-Epoxy HT
Thervest 200

Aluminium: Forvexal/Forvexal-Epoxy/Forvexal-Epoxy HT
Adhexal 200

types of insulation: normal, upgraded, calendered, Dennison papers, Nomex®,
polyester film, glass tapes

Specific and complete information available on request.

FROM 5 TO 55 INDIVIDUAL ENAMELLED FLATS



INSULATED ROUND AND FLAT CONDUCTORS, FIBRE GLASS AND MICA WIRES

ALUMINIUM

Round
diameter (mm): 1,60 min - 10,00 max
Flat
thickness (mm): 2,00 min - 8,00 max
width (mm): 4,00 min - 15,00 max

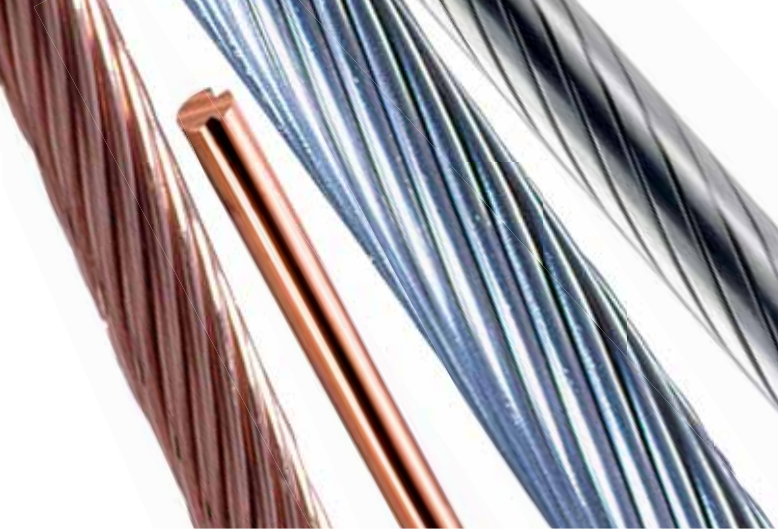
COPPER

Round
diameter (mm): 1,50 min - 8,00 max
Flat
thickness (mm): 1,00 min - 8,00 max
width (mm): 4,00 min - 25,00 max

TYPE OF INSULATION

MAIN PROPERTIES

Kraft natural paper	High purity 5°2-1M3
Calendered kraft	High density and dielectric strength
Calendered crepe paper	High mechanical characteristics
Upgraded kraft paper	High thermal properties
Diamant kraft	Bonding purposes and reducing bagging effect
Nomex®	Bonding purposes and reducing bagging effect with thermal class 200
Polyester film	High mechanical characteristics for dry transformers
Glass tape	High impregnation level and external protection
Tecwrap	High mechanical characteristics
Dacron/ Mylar®	High impregnation level
Polyester/ Mica	High thermal properties for motors and generators
Glass/ Mica	High impregnation level for traction motor



BARE OVERHEAD CONDUCTORS

A full line of monometallic and bimetallic **bare conductors** used in **overhead transmission and distribution** line applications.

We can offer various conductor designs to meet your application requirements.

CATENARY LINES FOR RAILWAYS APPLICATIONS

- Contact wire (trolley) according to EN 50149, Cu and CuAg/CuSn alloy from 80 to 150mm²
- Suspensions wires
- Overhead conductors

ROUND, FLAT AND SHAPED WIRES IN COPPER, ALUMINIUM AND ALUMINIUM ALLOY FOR A WIDE RANGE OF MECHANICAL AND ELECTRICAL APPLICATIONS

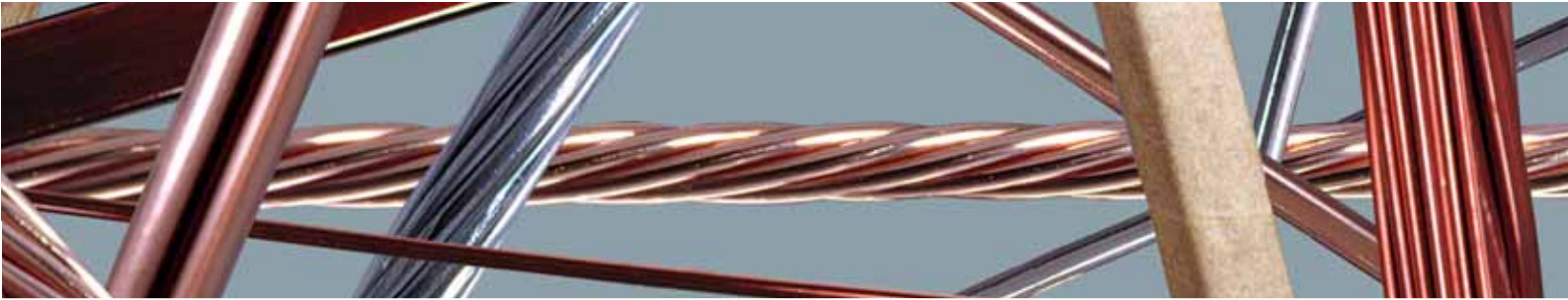
- Electric cables
- Flexible cables (multi-wires)
- Armours for electrical cables and pipes
- Metallic nets and small metal parts

BARE OVERHEAD CONDUCTORS

TYPE OF CONDUCTORS

DIMENSIONAL RANGE

Cu	∅ 4÷20mm / Section 10÷240mm ²
AAC	∅ 5÷41mm / Section 15÷1000mm ²
AAAC	∅ 5÷52mm / Section 15÷1600mm ²
EHC (extra high conductivity conductors)	∅ 5÷52mm / Section 15÷1000mm ²
ACSR	∅ 5÷56mm / Section 15÷1900mm ²
CEE – Azalee (energy conservation conductors)	∅ 5÷40mm / Section 15÷1000mm ²
HTLS Invar conductors	∅ 5÷40mm / Section 15÷1000mm ²
HTLS Gap-type conductors	∅ 5÷40mm / Section 15÷1000mm ²
HTLS ACSS conductors	∅ 5÷40mm / Section 15÷1000mm ²
HTLS Sheat-type conductors	∅ 6÷10mm / Section 20÷240mm ²
ACS and OPGW	∅ 5÷20mm / Section 10÷300mm ²



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