TELECOMMUNICATION POLES

composite telecommunication pole

alumast S.A.
design a safer world

ADVANTAGES OF COMPOSITE TELECOMMUNICATION POLES

LOW WEIGHT

EASY ASSEMBLY AND DISASSEMBLY

ELECTRICAL NON-CONDUCTIVE

HIGH MECHANICAL RESISTANCE

SLOW - BURNING

ECO - FRIENDLY

UV - PROTECTION

- **cheap installation**
- **no problems with utilization**
- **corrosion resistance**
- **unnecessary heavy equipment**
- **installation without the use of crane**
- **low weight - cheap transport**
- **installation from ground level**
- **no scrap value**
- **perfect solution for hard - to - reach areas**
- **no operating costs**
- **no water absorption**

COMPOSITE CONSTRUCTION

SELECTED PROJECTS

INSTALLATION AND LOGISTICS

COMPOSITE TELECOMMUNICATION POLES ARE LIGHTWEIGHT

This facilitates transport, assembly and disassembly, which can be performed by two fitters, without using machines and in a much shorter time. This significantly reduces investment and operating costs. Possibility to mount wires on the pole in a lying position.

7 m reinforced concrete pole ~ 360 kg

7 m wooden pole ~ 100 - 120 kg

7 m composite pole ~ 15 kg

FLEXIBILITY, ELASTICITY

No yield limit at which permanent deformation occurs. Exceeded apical force does not cause damage to the pole, but only a momentary deflection - deviation from vertical.

ECOLOGY

Composite pole is 100% recyclable,so there is no difficulty in its management after operating time. Our poles are not impregnated with creosote which is used at wooden poles. This substance is harmful to people and environment, and also significantly increases costs associated with utilization. After operating time we accept composite poles for utilization and we cover all costs - you deliver the poles to us, we take care of the rest.

DIGITALIZATION

Composite poles do not interfere with radio waves, microwaves, radars and more.

They are a good base for a network of radio transmitters in cities.

PASSIVE SAFETY

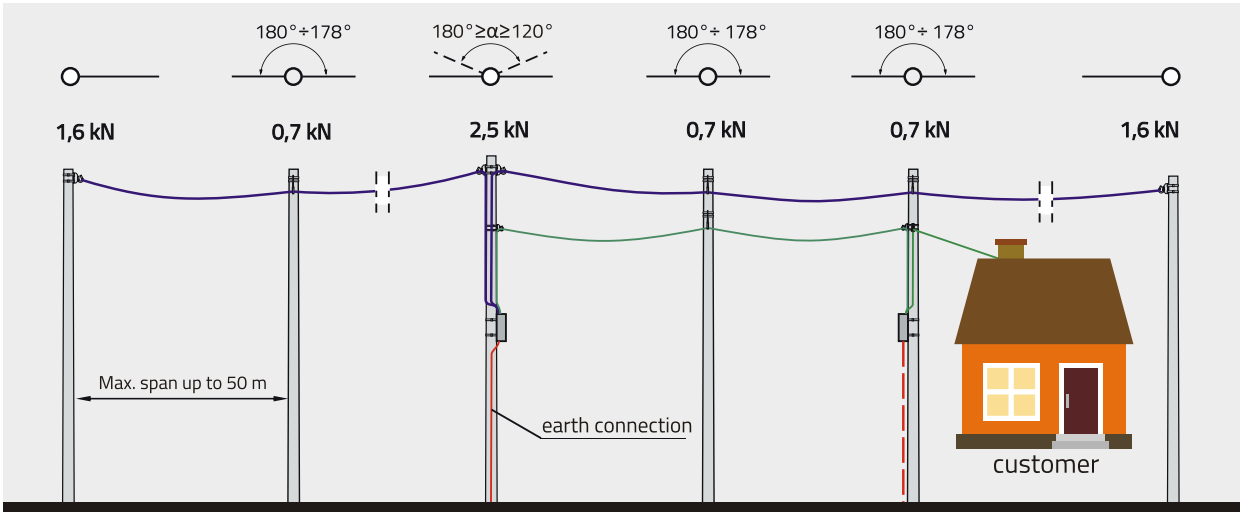
Composite telecommunication poles:

- during the collision absorb the energy only to a small extent - they are safe, they are no threat to a driver and passengers during collision
- mounted in the road lane without the need for protective barriers

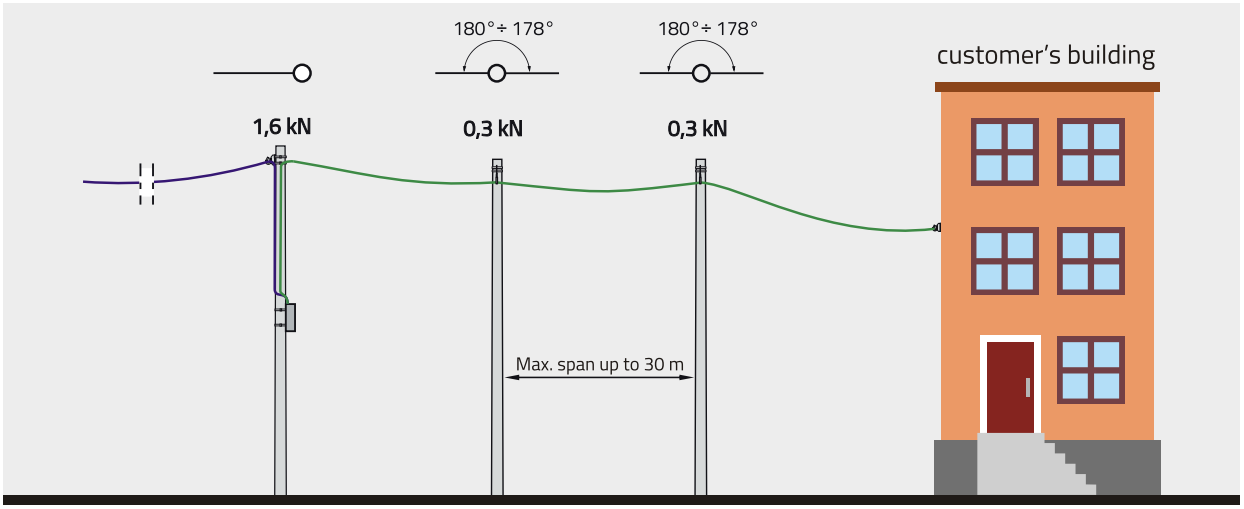
Poles mounted in the road lane require additional protective barriers or should have a certificate of compliance with the PN EN 12767 standard.
When using our certified poles, there is no need of using protective barriers, so that the investment cost on an exemplary 84 m road section reaches 54%. In case of using barriers, in addition to investment costs, there are also operating costs such as cleaning the barriers, removing snow in winter, repairing damaged sections, painting, inspecting the installation system, etc.

EXAMPLES OF DESIGNED TELETECHNICAL LINE

If you need help with choosing composite telecommunication poles for the construction of fiber optic line, below you can find examples, we also suggest how you can design your network using our poles.



Examples of technical lines with connections



Example of a branch-off from the main line using an overhead connection via MADC 2J cable on columns with an effective force of 0,3 kN.

Main line type TL3 - ADSS cable - 144J tension 8 MPa - 135 daN (upper cable)

Connection cable type MADC 2J - tension 65 MPa - 22 daN (bottom cable)

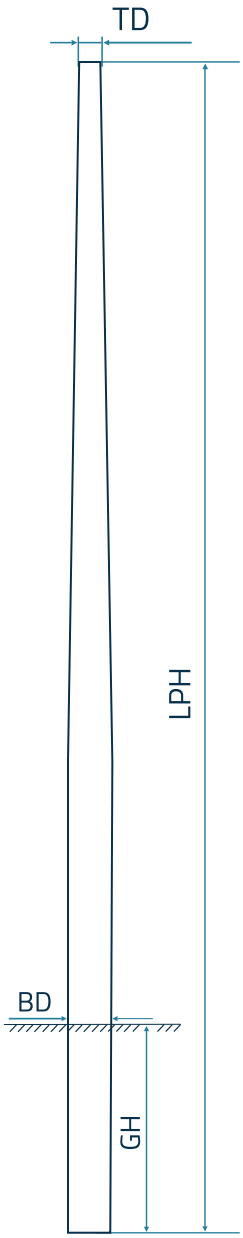
EXAMPLES OF DESIGNED TELETECHNICAL LINE

In the table below we have gathered the most important information - of course this is just an example. The adopted assortment of poles and fiber optic cables allows for their proper selection, depending on climatic and terrain conditions on the route of the designed line.

USE OF THE POLE	APICAL FORCE	MAX. SPAN LENGTH	CABLE TYPE
through-pole	0,3kN	30 m	cable type MADC 2J
through-pole	0,7kN	50 m	ADSS-12J, ADSS-24J, ADSS-36J, ADSS-48J, ADSS-72J, ADSS-96J, ADSS-144J
corner pole	0,7kN	30 m	cable type MADC 2J
corner pole	1,6kN	50 m	ADSS-12J, ADSS-24J, ADSS-36J, ADSS-48J, ADSS-72J, ADSS-96J, ADSS-144J
end pole	0,7kN	30 m	cable type MADC 2J
end pole	1,6kN	50 m	ADSS-12J, ADSS-24J, ADSS-36J, ADSS-48J, ADSS-72J, ADSS-96J, ADSS-144J
dead end pole	2,5kN	50 m	ADSS-12J, ADSS-24J, ADSS-36J, ADSS-48J, ADSS-72J, ADSS-96J, ADSS-144J

We have catalogues of overhead fiber optic telecommunication lines, which is very helpful in designing - ask for it in the sales department

TECHNICAL DATA



Telecommunication pole is produced without any technical holes. It is possible to make holes according to the customer's need.

LPH M	apical force [kN]	BD [mm]	TD [mm]	GH [m]
7	0,3	140	110	1,2
8,5	0,3	165	120	1,2
10	0,3	165	120	1,5
7	0,7	140	110	1,2
8,5	0,7	165	120	1,2
10	0,7	193	140	1,5
7	1,6	165	120	1,2
8,5	1,6	165	120	1,2
10	1,6	193	140	1,5

INNOVATIVE AND INTERESTING DESIGN

Standard colours included in the offer:
RAL 7035

YOU CAN CREATE YOUR OWN DESIGN WITH TEXTS, LOGO, SYMBOLS ETC.
Poles can be produced in any colour according to RAL palette or with customised pattern and internal illumination.


Birch


Candy


Wood


Clover

Possibility to adapt the teletechnical poles as a teletechnical poles with lighting

POLES INSTALLATION

POLE INSTALLED IN THE GROUND
- installation without any additional equipment
- installation direct into the ground
- possibility to use mounting mass for better pole stabilization

PRE-CAST CONCRETE
possibility to install our composite poles to already installed pre-cast concretes

TRANSPORT TRAILER

- carrying capacity ca. 1000 kg
- 50-60 poles per one transport
- length of loading space 7,5 m.
- designed for the hook of passenger and delivery cars
- easy transportation in hard-to-reach areas
- mobility at all times

TIPS ON HOW TO INSTALL TELECOMMUNICATION POLES

INSTALLATION OF COMPOSITE TELECOMMUNICATION POLES

PROVEN RESISTANCE OF COMPOSITE POLES

CRASH TEST **FLAMMABILITY TEST** **RESISTANCE TEST**

YouTube Check all tests on our youtube channel **youtube.com/alumast**

WHAT DISTINGUISHES US

- composite teletechnical poles of our production are adapted and dedicated to the teletechnical industry for the construction of fiber optic lines
- composite teletechnical poles are produced according to our own production technology
- since 2008 we have our own production line
- we have our own program for calculating the strength of columns in accordance with PN EN 1991 - 1 - 4: 2008
- we offer expert support and experience in the production of laminates
- we have a proving ground for testing the strength of poles
- 10 years guarantee for telecommunication poles
- we carry out the largest investment in Poland within POPC (Operational Project Digital Poland) - we have the knowledge and experience
- it is possible to prepare strength calculations for a given project
- we will adjust the parameters of the columns to the customer's requirements (change of apical force, diameters, height)
- there is the possibility of increasing production capacity and introducing other measures by expanding the production line to meet larger orders in a shorter period of time

Please contact us
if you have any questions.
We will be happy to prepare an offer
adjusted to your needs.

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