Production Company AKVATON "AKVATON", Ltd

# Round and rectangular copper and aluminum wire with paper insulation

**Class 105, 120**

## Name of copper wires:

- PB
- PBU
- PBUn
- PBn

## Name of aluminum wires:

- APB
- APBU
- APBUn
- APBn

## Properties:

- Excellent electrical insulating properties
- Electrical strength
- Small insulation thickness
- Long service life

## Size series:

Round: 2,8 - 8,0 mm

Rectangular: 5 - 80 mm²

$1,4 \leq (b/a) < 8$

## Class: 105, 120

Temperature index: 105°C, 120°C

## Breakdown voltage:

Not standardized

## Electrical resistance:

Copper: 0,01724 Om*mm²/m

Aluminum: 0,0277 Om*mm²/m

## Relative elongation:

Copper: from 30 - 35% and more

Aluminum: from 20 - 26% and more

## Sphere application:

- Electric machines
- Electrical devices and transformers
- High-voltage oil transformers and reactors

## Conductor material:

DSTU EN 1977 Cu - ETP CW004A
DSTU EN 1977 Cu - ETP1 CW003A
DSTU EN 1977 Cu - OF CW008A
EN1715 - (Al ≥ 99.7)

## Isolation:

- Cable paper
- High-voltage transformer paper
- Electrically insulating paper
- Phone paper

## Packaging:

Coils: 800/36; 500/36

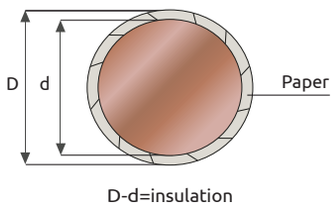
## Specification:

IEC 60317-27
TU U 27.3-13970259-009:2016

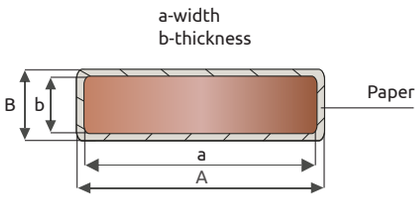
## Production is certified:

DSTU ISO 9001:20015 (ISO 9001:2015, IDT);
DSTU EN ISO 9001:2018 (EN ISO 9001:2015, IDT);
ISO 9001:2015.

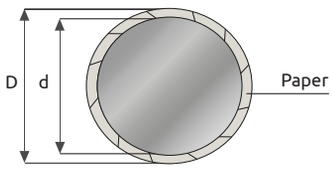
## Wire cross section



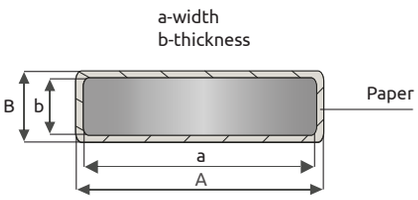

D-d=insulation




A-a=insulation
B-b=insulation




D-d=insulation




A-a=insulation
B-b=insulation

## Table of dimensional characteristics

| Temperature index 105, 120<br>Round and rectangular copper and aluminum wires with paper insulation | | | | |
|---|---|---|---|---|
| **Brands wires** | **Temperature class** | **Type of insulation** | **Size range** | |
| | | | **Round, mm** | **Rectangular, $mm^2$** |
| **PB<br>APB** | 105°C | Cable paper and (or) telephone paper | 2,8–8,0 | to 80 |
| **PBU<br>APBU** | | Transformer high-voltage compacted paper | – | to 80 |
| **PBn<br>APBn** | 120°C | Electrically insulating heat-resistant paper | – | to 80 |
| **PBUn<br>APBUn** | | Transformer high-voltage compacted paper | 2,8–8,0 | to 80 |