



# DASOL 180

Round enamelled winding wire of copper, solderable, class 180

## Product name:

Dasol 180 - Gr 1

Dasol 180 - Gr 2

## Specifications:

IEC 60317-51 / NEMA MW82

## UL approval:

Approved: Dasol 180

UL-file no: E101843

## Class: 180

Temperature index  $\geq 180\text{ }^{\circ}\text{C}$

Heat shock:  $\geq 200\text{ }^{\circ}\text{C}$

## Conductor material:

EN 1977 - ETP1 CW003A

EN 1977 - ETP CW004A

ASTM B49 - ETP C11000/C11040

## Insulation:

Basecoat: Polyurethane

## Properties:

- Suitable in high speed winding machines
- Directly solderable
- Very short soldertime
- Excellent mechanical resistance

## Field of application:

- Small motors and transformers
- Solenoid coils
- Relays

## Dimension range:

Dasol 180 - Gr 1  $0,315 \leq \varnothing \leq 2,000\text{ mm}$

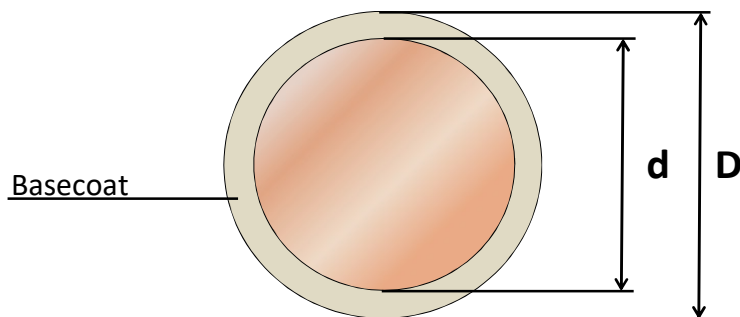
Dasol 180 - Gr 2  $0,315 \leq \varnothing \leq 2,000\text{ mm}$

## Standard packaging:

A250/400

## Shelf life:

6 years, under normal ambient conditions



$D - d = \text{Increase}$

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## Properties for DASOL 180

| Main characteristics         | Test method     | Property values                        | Test values for a DASOL 180 sample (1,00 mm, Gr1) |
|------------------------------|-----------------|----------------------------------------|---------------------------------------------------|
| <b>Thermal properties</b>    |                 |                                        |                                                   |
| Heat shock                   | IEC 60851 - 6.3 | $\geq 200^{\circ}\text{C}$             | $\geq 200^{\circ}\text{C}$                        |
| Cut-through                  | IEC 60851- 6.4  | $\geq 230^{\circ}\text{C}$             | $\geq 240^{\circ}\text{C}$                        |
| Temperature index            | IEC 60172       | $\geq 180^{\circ}\text{C}^{(1)}$       | $\geq 180^{\circ}\text{C}^{(1)}$                  |
| <b>Electrical properties</b> |                 |                                        |                                                   |
| Conductor resistance         | IEC 60851 - 5.3 | $0,01724 \Omega\text{mm}^2/\text{m}$   | $0,01724 \Omega\text{mm}^2/\text{m}$              |
| Conductivity                 | 1/R             | $> 58,5 \text{ m}/(\Omega\text{mm}^2)$ | $> 58,5 \text{ m}/(\Omega\text{mm}^2)$            |
| Breakdown voltage            | IEC 60851 - 5.4 | IEC 60317-0-1 <sup>2)</sup>            | 6,7 kV                                            |
| <b>Mechanical properties</b> |                 |                                        |                                                   |
| Elongation                   | IEC 60851-3.3   | IEC 60317-0-1 <sup>2)</sup>            | 40%                                               |
| Springiness                  | IEC 60851-3.4   | Springiness <sup>3)</sup>              | IEC 60317-0-1 <sup>2)</sup>                       |
|                              |                 | Springback <sup>4)</sup>               | $\leq 5^{\circ}$                                  |
| Flexibility                  | IEC 60851-3.5   | Mandrel wind <sup>3)</sup>             | $1 \times \emptyset$                              |
|                              |                 | Stretching <sup>4)</sup>               | min. 32%                                          |
| Adherence                    | IEC 60851-3.5   | Jerktest <sup>5)</sup>                 | No loss of adhesion                               |
|                              |                 | Peeltest <sup>6)</sup>                 | min. 110 <sup>7)</sup>                            |

1. According to supplier certificate

2. Values depend on dimension

3. Up to an including 1,60 mm

4. Over 1,60 mm

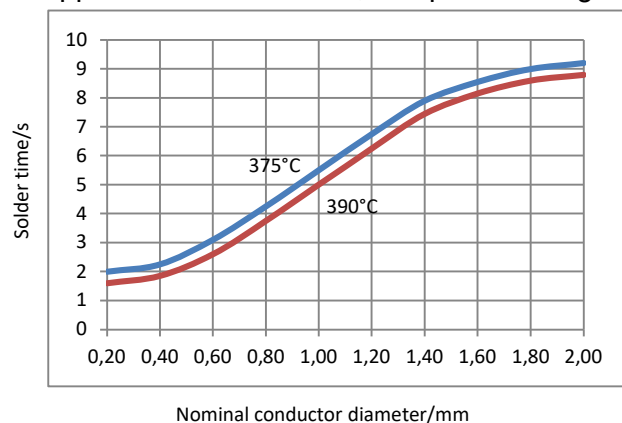
5. Up to and including 1,00 mm

6. Over 1,00 mm

7. Revolutions x nominal dimension

Values above are for information only. All values noted are typical and can vary between lots and dimensions.

## Approximate solder time, independent of grade



The technical data included is up to date at the time of printing.

We reserves the right to make any amendments deemed necessary

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