

1 Steel Cord

1.1 General Characteristics

1.1.1 Welds and splices

Continuous lengths are supplied which means that:

- a. filament splices are permitted
- b. cord welds are permitted and should withstand a minimum load equal to 40% of the breaking load of the cord. The increase in diameter of the finished weld should not exceed the cord diameter by more than 15%
- c. number of cord welds will not exceed
 - 3 per spool type BS40 or BS60
 - 4 per spool type BS80

1.1.2 Tolerance on individual value

- Cord diameter: $\pm 5\%$
- Linear density: $\pm 5\%$
- Length of cord per spool:
 - $\pm 0.75\%$ if cord length ≤ 2000 m
 - $\pm 0.50\%$ if cord length > 2000 m and ≤ 8000 m
 - $\pm 0.25\%$ if cord length > 8000 m
 - $\pm 0.75\%$ for HE cord types.



1.1.3 Coating definition

The conversion from mass of coating expressed in g/kg to thickness of coating expressed in micrometers is done according to the following formula

$$\text{Thickness} = \text{Mass} \times d \times 0.235$$

where

d = diameter of filament in mm

Standard is the LOW COPPER type.

diameter filament	thickness (μm)	composition (%Cu)
$d < 0.27$ mm	0.20 +/- 0.04	63.5 +/- 2.5
$0.27 \leq d \leq 0.32$	0.24 +/- 0.04	63.5 +/- 2.5
$d > 0.32$	0.30 +/- 0.04	63.5 +/- 2.5

