



**B450C - ITALY**

STANDARD: **DM 17/01/2018**

PRODUCT TYPE: **REINFORCING STEEL BAR B450C**

DIMENSION:  $\emptyset$  mm **8 - 10 - 12 - 14 - 16 - 18 - 20 - 22 - 24 - 25 - 26 - 28 - 30 - 32 - 40**

**CHEMICAL COMPOSITION (%)**

	C	S	P	Cu	N	Ceq	It is permitted to exceed the maximum values for carbon by 0,03 % by mass, provided that the carbon equivalent value is decreased by 0,02 % by mass
Cast analysis	0,22	0,050	0,050	0,80	0,012	0,50	
Product analysis	0,24	0,055	0,055	0,85	0,014	0,52	

**MECHANICAL PROPERTIES**

	Characteristic value	Min	MAX
<b>UPPER YIELD STRENGTH <math>R_{eH}</math> (MPa)</b>	$\geq 450$	425	572
$R_m/R_{eH}$	1,15÷1,35	1,13	1,37
<b>PERCENTAGE TOTAL ELONGATION AT MAXIMUM FORCE <math>A_{gt}</math> (%)</b>	$\geq 7,5$	6,0	

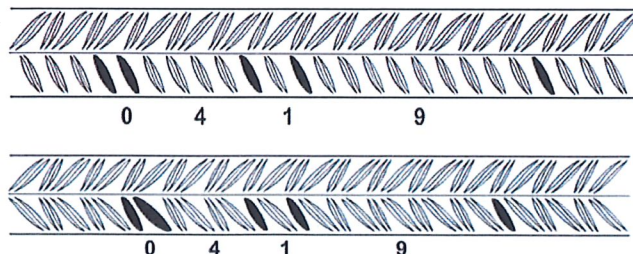
**GEOMETRY**

<b>DEVIATION FROM NOMINAL MASS (%)</b>	$\emptyset \leq 8$	$\pm 6,0$
	$\emptyset \geq 12$	$\pm 4,5$
<b>RELATIVE RIB AREA <math>f_r</math></b>	$\emptyset = 8 \div 10 \div 12$	$\geq 0,040$
	$\emptyset > 12$	$\geq 0,056$

**BEND AND RE-BEND**

Angle of bend	Ageing	Re-bend angle	
= 90°	1 h (-0,+15 min) at 100°C $\pm 10^\circ$ C	$\geq 20^\circ$	
Bend mandrel			
$\emptyset < 12$ mm	$12 \leq \emptyset \leq 16$ mm	$16 < \emptyset \leq 25$ mm	$25 < \emptyset \leq 40$ mm
4 $\emptyset$	5 $\emptyset$	8 $\emptyset$	10 $\emptyset$

**MARKING**



QCE

Baruzzi Mario

QSM

Brunori Andrea