

 J. SOARES CORREIA ANGOLA S.A.	TECHNICAL PRODUCT SHEET FOR LNEC E 450 - GRADE A500/FICHA TÉCNICA DO PRODUTO PARA LNEC E 450-2017 - GRAU A 500 NR	
PRODUCT DESCRIPTION/DESCRIÇÃO DO PRODUTO	High Strength Steel Bar For Reinforcement Concrete/ Barra de aço de alta resistência para concreto armado	
MANUFACTURING PROCESS/PROCESSO DE MANUFATURAÇÃO	Thermo Mechanical Treated (TMT)/ Tratamento Termo Mecânico	

TMT Bar Size (mm)	Standard	Final Chemistry % / Química Final %								Mechanical Properties										Physical Properties				Cross section area mm²	Single Bar Mass(12mtr)-Kgm	Number of pcs						
		C	Si	Mn	P	S	Cu	N	Ceq	Yield Strength N/mm²		Tensile Strength N/mm²		Elongation %		TS/YS Ratio		Agt (%)	Mandrel		Mass - Kgm/mtr					1 Ton	2 Ton					
										Cast Analysis /Finished Product Analysis	Cast Analysis /Finished Product Analysis	Cast Analysis /Finished Product Analysis	Cast Analysis /Finished Product Analysis	Cast Analysis /Finished Product Analysis	Min	Max	Min	Max	Min	Max	Min	Max	Min					Bend Test @ 180°	Bend 4 Re-Bend @ 90°/20°	Nominal	Tolerance %	Min
8	LNEC E 450-2017	0.22 Max 0.24 Max	-	-	0.050 Max 0.055 Max	0.050 Max 0.055 Max	0.80 Max 0.85 Max	0.012 Max 0.014 Max	0.50 Max 0.52 Max	500	-	550	-	12	-	1.08	-	5	4Ø	-	0.395	± 4.5	0.377	0.412	50.285	4.740	211	422				
	Internal Fixed	0.15 - 0.23	0.15 - 0.35	0.50(±0.05)	0.050 Max	0.050 Max	0.50 Max	0.012Max	0.52 Max	520	-	595	-	14	-	1.10	-	5	4Ø	-		± 2	0.387	0.402								
10	LNEC E 450-2017	0.22 Max 0.24 Max	-	-	0.050 Max 0.055 Max	0.050 Max 0.055 Max	0.80 Max 0.85 Max	0.012 Max 0.014 Max	0.50 Max 0.52 Max	500	-	550	-	12	-	1.08	-	5	4Ø	-	0.617	± 4.5	0.589	0.644	78.570	7.404	135	270				
	Internal Fixed	0.15 - 0.23	0.15 - 0.35	0.50(±0.05)	0.050 Max	0.050 Max	0.50 Max	0.012Max	0.52 Max	520	-	595	-	14	-	1.10	-	5	4Ø	-		± 2	0.604	0.629								
12	LNEC E 450-2017	0.22 Max 0.24 Max	-	-	0.050 Max 0.055 Max	0.050 Max 0.055 Max	0.80 Max 0.85 Max	0.012 Max 0.014 Max	0.50 Max 0.52 Max	500	-	550	-	12	-	1.08	-	5	4Ø	-	0.888	± 4.5	0.848	0.927	113.140	10.656	94	188				
	Internal Fixed	0.15 - 0.23	0.15 - 0.35	0.50(±0.05)	0.050 Max	0.050 Max	0.50 Max	0.012Max	0.52 Max	520	-	595	-	14	-	1.10	-	5	4Ø	-		± 2	0.870	0.905								
14	LNEC E 450-2017	0.22 Max 0.24 Max	-	-	0.050 Max 0.055 Max	0.050 Max 0.055 Max	0.80 Max 0.85 Max	0.012 Max 0.014 Max	0.50 Max 0.52 Max	500	-	550	-	12	-	1.08	-	5	-	8Ø	1.210	± 4.5	1.156	1.264	154.000	14.520	69	138				
	Internal Fixed	0.15 - 0.23	0.15 - 0.35	0.50 - 0.60	0.050 Max	0.050 Max	0.50 Max	0.012Max	0.52 Max	520	-	595	-	14	-	1.10	-	5	-	8Ø		± 2	1.185	1.234								
16	LNEC E 450-2017	0.22 Max 0.24 Max	-	-	0.050 Max 0.055 Max	0.050 Max 0.055 Max	0.80 Max 0.85 Max	0.012 Max 0.014 Max	0.50 Max 0.52 Max	500	-	550	-	12	-	1.08	-	5	-	8Ø	1.580	± 4.5	1.508	1.651	201.142	18.960	53	106				
	Internal Fixed	0.15 - 0.23	0.15 - 0.35	0.50 - 0.60	0.050 Max	0.050 Max	0.50 Max	0.012Max	0.52 Max	520	-	595	-	14	-	1.10	-	5	-	8Ø		± 2	1.548	1.611								
20	LNEC E 450-2017	0.22 Max 0.24 Max	-	-	0.050 Max 0.055 Max	0.050 Max 0.055 Max	0.80 Max 0.85 Max	0.012 Max 0.014 Max	0.50 Max 0.52 Max	500	-	550	-	12	-	1.08	-	5	-	10Ø	2.470	± 4.5	2.358	2.581	29.640	34	68					
	Internal Fixed	0.15 - 0.20	0.15 - 0.30	0.50 - 0.70	0.050 Max	0.050 Max	0.30 Max	0.012Max	0.52 Max	520	-	595	-	14	-	1.10	-	5	-	10Ø		± 2	2.420	2.519								
25	LNEC E 450-2017	0.22 Max 0.24 Max	-	-	0.050 Max 0.055 Max	0.050 Max 0.055 Max	0.80 Max 0.85 Max	0.012 Max 0.014 Max	0.50 Max 0.52 Max	500	-	550	-	12	-	1.08	-	5	-	10Ø	3.850	± 4.5	3.676	4.023	491.071	46.200	22	44				
	Internal Fixed	0.15 - 0.20	0.15 - 0.30	0.60 - 0.75	0.050 Max	0.050 Max	0.30 Max	0.012Max	0.52 Max	520	-	595	-	14	-	1.10	-	5	-	10Ø		± 2	3.773	3.927								
32	LNEC E 450-2017	0.22 Max 0.24 Max	-	-	0.050 Max 0.055 Max	0.050 Max 0.055 Max	0.80 Max 0.85 Max	0.012 Max 0.014 Max	0.50 Max 0.52 Max	500	-	550	-	12	-	1.08	-	5	-	12Ø	6.31	± 4.5	6.026	6.593	804.570	75.720	13	26				
	Internal Fixed	0.15 - 0.20	0.15 - 0.30	0.60 - 0.75	0.050 Max	0.050 Max	0.30 Max	0.012Max	0.52 Max	520	-	595	-	14	-	1.10	-	5	-	12Ø		± 2	6.183	6.436								


TEST - 5 0044 / TEST - 6 0003





An ISO 9001:2015 Certified





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