

1. DESCRIPTION

Deformed steel bars for concrete reinforcing, produced with air cooling process, according to ASTM A615 grade 60.

2. CHEMICAL COMPOSITION OF CAST

	Limits	C %	P %	S %	Cu %	N %	Ceq %
FERRIERE NORD	aim	0.42					
ASTM A615	max	-	0.060	-	-	-	-

3. TENSILE AND DIMENSIONAL PROPERTIES

Standard	Steel grade	Bar designation range mm	Y.S. min MPa	Y.S. aim MPa	T.S. min MPa	T.S. aim MPa	Elongation min %
FERRIERE NORD	60	3 ÷ 8	420	460	620	720	8 ÷ 9
ASTM A615	60	3 ÷ 20	420	-	620	-	7 ÷ 9

NOTES:

- Elongation according to ASTM A 615 Table 2.
- Deformations according to ASTM A 615 Table 1.
- Variation in weight per unit length: as per contract

4. BENDING PROPERTIES

Bar designation No	Pin diameter for bend test 180°
3, 4, 5	31/2 d
6, 7, 8	5 d

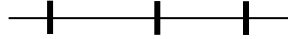
5. STANDARD PACKAGING

- 40' (12,2 m), Size 3, bundles for bar weight of the bundle about 2 tons - tied with 7 wire rod bindings points
- 40' (12,2 m), Size ≥ 4 , bundles for bar weight of the bundle about 2 tons - tied with 5 wire rod bindings points
- 30' (9,14 m), All Size, bundles: weight of the bundle about 1,7 tons - tied with 5 wire rod bindings points
- 20' (6,10 m), All Size, bundles: weight of the bundle about 1,0 tons - tied with 3 wire rod bindings points
- Wire rod for binding 7 mm diam
- Tolerance on bar length -0 / + 50 mm
- No bars shorter than tolerance in the bundle

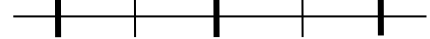
Piece count for each bundle

Bar designation No	Piece count
3	266
4	150
5	96
6	68
7	50
8	40

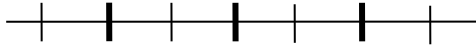
Bundle length 20' (all size)



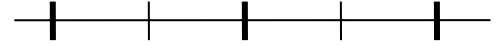
Bundle length 30' (all size)



Bundle length 40' (size 3)



Bundle length 40' (size ≥ 4)



- | single Binding
- | double Binding

6. STANDARD IDENTIFICATION

Each bundle with label reporting: manufacturer, grade, heat number, bar designation, length, number of pieces per bundle, standard reference.

7. STANDARD TEST REPORT

Test Report including chemical analysis, tensile properties, bend test results.

8. IDENTIFICATION MARK AND RIB PATTERN

Example of marking for bar designation.

