

APPROVED
FRENCH
STANDARD
SPECIFICATION

IRON & STEEL PRODUCTS
NON ALLOY CARBON STEEL WIRE RODS
FOR WELDED WIRE FABRIC
Grades

NF
A 35052
March 1971

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The present document is a translation of the above French Standard Specification. Should any question or doubt arise concerning its interpretation, reference is exclusively to be made to the original French text as remaining the sole valid.

1. GENERAL

1.1 PURPOSE

The purpose of the present Standard Specification is the determination of the wire rod characteristics required for the manufacture of concrete reinforcement mats.

1.2 SCOPE

The present Standard Specification is of application in the case of non alloy carbon steel wire rods for manufacturing concrete reinforcement mats (*) once cold drawn into wires.

The present Standard Specification is irrelevant in the case of grades governed by different Standards, such as :

- Wire rods for cold drawing and cold rolling (NF A 35-051) ;
- Wire rods for concrete reinforcement (NF A 35-015) ;
- Wire rods for concrete reinforcement, prestressed ;
- Special alloy & non alloy carbon steel wire rods for subsequent heat-treatments of the finished products (NF A 35-562) ;
- Wire rods for the manufacture of coated & uncoated electrodes ;
- Cold heading quality wire rods (under preparation) ;
- Free cutting quality wire rods (NF A 35-561).

2. CHARACTERISTICS OF THE GRADES

2.1 MECHANICAL CHARACTERISTICS

For concrete reinforcement mat or wire netting manufacture, two different wire rod grades, TS 1 and TS 2, have been provided for, characterized by related minimal tensile strengths to be found once the product has been drawn with the required minimal cold reduction ratio.

In table 1 are shown these required minimal cold reduction ratios necessary to reach the specified minimal tensile strengths subsequently to cold drawing operations.

(*) The subject wire rods of the present Standard Specification must comply with size and tolerance requirements as per "Non alloy carbon steel wire rods for cold drawing and cold rolling, Tolerances" Standard Specification NF A 45-051.

TABLE I

MINIMAL COLD REDUCTION RATIO(*)

Grades	Minimal yield strength (drawn product)	
	56 hbar (57 kgf/mm ²)	65 hbar (66 kgf/mm ²)
TS 1	35 %	55 %
TS 2	27 %	42 %

(*) Percentage applying to the wire rod nominal diameter

Verification of the yield strength is proceeded to on spontaneous aged (8 days) or artificially aged (30 min. at 250° C or 4 h at 100° C) specimens .

2.2 WELDABILITY

The aptitude for electric resistance welding is specified. To that end *the check(product) analysis* shall have to be so as to meet the values appearing in Table II.

TABLE II

CHEMICAL COMPOSITION (PRODUCT)
(grades TS 1 et TS 2)

Element	Maximum content (p. cent)
C	0,25
P	0,08
S	0,07

2.3 DRAWABILITY

The wire rods shall not show any property liable to make them unsuitable for subsequent cold drawing operations.