

APPROVED
FRENCH
STANDARD
SPECIFICATION

IRON & STEEL PRODUCTS
NON ALLOY CARBON STEEL WIRE RODS
FOR COATED ELECTRODE MANUFACTURE

Grades and Qualities

NF

A 35-056

June 1975

CONTENTS

1.1	GENERAL	1
1.1	PURPOSE	1
1.2	SCOPE	1
2.	GRADES AND QUALITIES	2
2.1	GRADES AND QUALITIES AVAILABLE	2
2.2	CHEMICAL COMPOSITION.....	2
	Table I - Chemical composition.....	2
3.	SUPERFICIAL APPEARANCE. INTERNAL SOUNDNESS	2
4.	INSPECTION	2
4.1	VERIFICATION OF THE CHEMICAL COMPOSITION.....	2
4.2	ANALYSIS METHOD	2
5	MARKING.....	2

1. GENERAL

PURPOSE

The purpose of the present Standard Specification is the definition of the non alloy carbon mild steel grades and qualities for the manufacture of coated electrodes.

SCOPE

The present Standard Specification is of application for non alloy mild carbon steel wire rods(*) for the manufacture of coated electrodes for manual electric arc welding, as determined per NF A 81-302 & NF A 81-309 Stand. Specifications.

The present document is however irrelevant when concerning products for which different Standards or Specifications have been provided for, such as :

- Wire rods for cold drawing and cold rolling (NF A 35-051)
- Wire rods for hot & cold forming (NF A 35-053 ;
- Wire rods for the manufacture of electrode wires for gas shielded or flux powder electric arc welding (NF A 35-056).

(*) Dimensions of the wire rods covered by the present Standard must fully comply with the size tolerances determined by the NF A 45-051 Standard Specification

Approved as of
75-05-28

© AFNOR 1982
Worldwide Copyrights
reserved

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.

2. GRADES AND QUALITIES

2.1 GRADES & QUALITIES AVAILABLE

Grades & qualities specified in the Table I are characterized by their chemical composition as of the product (check) analysis.

The wire rods are manufactured from running steels.

2.2 CHEMICAL COMPOSITION

The admissible composition range for each element in product (check) analysis appear in Table I

TABLE. I - CHEMICAL COMPOSITION

Grades	Quality	C % max.	Mn %	P % max.	S % max.	Ni % max.	Cr % max.	Cu % max.	Cr + Ni + Cu % max.
FME 8	5	0,100	0,40-0,60	0,030	0,030	0,12	0,12	0,12	0,30
FME 8	7	0,100	0,40-0,60	0,020	0,020	0,12	0,12	0,12	0,30

3. SUPERFICIAL APPEARANCE. INTERNAL SOUNDNESS

Wire rods are not to show any internal defect such as cavities, pipes or superficial imperfections such as pits, score marks, laps, cracks....liable to impair subsequent drawing.

4. INSPECTION

4.1 VERIFICATION OF THE CHEMICAL COMPOSITION

All wire rod coils must comply with the requirements appearing in Table I.

4.2 ANALYSIS METHOD

4.2.1

Should any difference arise in the matter, analyses shall have to be proceeded to in accordance with the requirements specified in the following Standard Specifications :

- NF A 06-301, for carbon content determination
- NF A 06-302, for silicon content determination
- NF A 06-303, for manganese content spectrographic determination
- NF A 06-304, for post combustion sulfur content determination
- NF A 06-305, for phosphorus content determination
- NF A 06-306, for copper electrolytical content determination
- NF A 06-307, for nickel content determination
- NF A 06-308, for chromium content determination
- NF A 03-111, for specimen sampling and specimen preparation conditions

4.2.2

On one sole and same sample the analysis accuracy range must fall within the limits hereunder

- carbon content..... $\pm$ 0.01
- manganese content $\pm$ 0.02
- silicon content $\pm$ 0.02
- phosphorus and sulfur contents..... $\pm$ 0.002

4.3

For all wire rod shipment a ladle analysis certificate is issued.

5. MARKING

Every wire rod coil supplied is to bear the following indications :

- name of the supplier
- indication of the grade and of the quality
- heat N°
- wire rod o.d.