

TECHNICAL DOSSIER DESCRIPTION	DTD	289
	VERSION 5	2024/04

APPLICATION OF THE BENOR MARK IN THE SECTOR OF
PRESTRESSING STEELS (WIRE AND STRANDS) -
ASSESSMENT METHODS APPLICABLE TO THE "USERS OF
THE MARK"
PRODUCERS - TECHNICAL FILE

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FOREWORD

On 01.04.2024, the npo's PROBETON, BE-CERT, OCAB-OCBS and PROCERTUS merged in accordance with article 13 of the Code of Companies and Associations. On that date, PROBETON, BE-CERT and OCAB-OCBS were automatically dissolved, and all their rights and obligations were transferred to PROCERTUS, which alone continues their activities.

CONTENT

1	PRESENTATION OF THE TECHNICAL DOSSIER	4
2	INFORMATION CONCERNING THE PRODUCING FACTORY	4
3	INFORMATION CONCERNING THE PRODUCTION	4
3.1	Wire rod	4
3.1.1	Supply of wire rod	4
3.1.2	Wire rod controls	4
3.2	Zinc layer	4
3.3	Sheath and protection products	4
3.4	Manufacturing process	5
3.5	End products	5
3.5.1	Properties of end products (TRA 282 § 3.1 and 4.1.2)	5
3.5.2	Information relating to the production schedule	5
3.5.3	Marking, storage and delivery conditions for the end products	5
4	INFORMATION RELATING TO THE CONTROL METHODS	6
5	HISTORY OF REVISIONS	6

1 PRESENTATION OF THE TECHNICAL DOSSIER

During the preliminary examination for the granting of the authorisation of use of the BENOR mark (TRA 282 § 3.1 and § 3.2.2), the applicant must present a technical dossier. This dossier contains at least the data which are referred to in the following chapters.

The prestressing steel producer must constantly keep this dossier up to date and PROCERTUS shall be spontaneously informed about any modification. The purpose thereof is to show with technical arguments that product quality is not jeopardised as a result of these modifications.

All data of this dossier is regarded confidential and will be communicated to thirds only with the agreement of the applicant.

2 INFORMATION CONCERNING THE PRODUCING FACTORY

- Head office of the company.
- Geographical situation of the producing factory.
- Schematic organisation chart of the factory establishing the respective independence of the departments of production and control.
- Complete organisation chart of the control department.

3 INFORMATION CONCERNING THE PRODUCTION

3.1 Wire rod

3.1.1 Supply of wire rod

- Sources of supply in wire rod including the processes of steelmaking, chemical composition of the product (see NBN I10-001, § 3 and TRA 282 § 3.2.2), casting modes and manufacturing processes;
- Installation of an internal procedure of qualification of the used wire rod, including the technical specifications imposed by the factory to the raw material suppliers.

3.1.2 Wire rod controls

- either the test results on the wire rod delivered, carried out and transmitted by the supplier of the wire rod, and from which the prestressing steel producer can deduce that the delivered wire rod meets its requirements for quality;
- or controls (methods and frequencies), that the prestressing steel producer carried out himself on the delivered wire rod.

3.2 Zinc layer

- List and small description of the type(s) of galvanizing used by the producer.

3.3 Sheath and protection products

- Sources of supply in grease, wax and basic ready-to-use material (pellets) used to make the sheath;
- Reception procedure for these materials.

3.4 Manufacturing process

Diagram of the manufacturing process clearly highlighting the succession of the various operations (thermal, chemical, mechanical, thermomechanical, ... treatments) and process controls (nature and frequency) carried out at the time of each operation (TRA 282 § 3.5.1).

3.5 End products

3.5.1 Properties of end products (TRA 282 § 3.1 and 4.1.2)

- Complete description of the products (number of wires, diameters, section, mechanical properties and time properties, according to NBN I10-001 to 003 and 008, and PTV 311, 312, 314 and 315).
- Possible approvals the products benefit from other certification bodies, as well national as foreign (to provide the integral photocopy of all the authorisations delivered by these organisations).
- An appendix containing a list which shows, for each family of products (TRA 282, § 2.2.3) and for each diameter certified in these families, which wire rod (with information of the type, origin and diameter) is used to produce each one of these prestressing reinforcements.

This list is supplemented with a table that gives for each combination, the date of validation by the certification body or his representative and the test results about:

- mechanical specifications (tensile and deviated tensile test), defined in the laboratory of the factory of the prestressing steel producer or of the external laboratory;
- properties depending on time, namely the level of relieving, the fatigue strength and the stress corrosion resistance, determined in the laboratory of the factory of the prestressing steel producer or of the external laboratory.

These tests can be carried out within the framework of other of certification schemes.

A copy of the test results concerned (with identification of the evaluated producer) must be available for information of the organisation of inspection by the producer of the prestressing steel.

3.5.2 Information relating to the production schedule

The authorisation of BENOR mark is granted by family (TRA 282, § 2.2.3). The prestressing steel producer must also clearly indicate:

1. the families for which he benefits/wishes to benefit from the authorisation of use of BENOR mark;
2. within each one of these families, the producer must indicate the produced reinforcements and specify for each one if the production is continuous or occasional.

3.5.3 Marking, storage and delivery conditions for the end products

The prestressing steel producer is bound to respect his own instructions and thus to announce any modification. For this purpose, he joins a model of label that must be affixed with the prestressing steel delivered to the dossier. The labels must at least carry the indications given in § 3.3.1 of TRA 282.

The prestressing steel producer describes in a detailed way the procedure according to which the labels must be affixed.

4 INFORMATION RELATING TO THE CONTROL METHODS

Listing of test machines and equipment for control of conformity to the specifications. Frequency of calibrations and organisation(s) having carried out the last calibration of each machine (§ 2.2.4.1 of TRA 282).

Method of recording results of the industrial autocontrol and means of statistical analysis of these results (§ 4.4 of the TRA 282).

5 HISTORY OF REVISIONS

Revisions 0 to 2, creation, adaptations

Revision 3

- Reference to TRA 282

Revision 4

- Inclusion of properties regarding the zinc layer, the sheath and protection products
- Corrections to references to TRA 282

Revision 5

- Transfer from OCAB-OCBS to PROCERTUS
- Editorial corrections