
Grout for prestressing tendons —
Part 1:
Basic requirements

Coulis pour câbles de précontrainte —
Partie 1: Exigences essentielles





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Contents

Page

Foreword	iv
Introduction	v
1 Scope	1
2 Normative references	1
3 Terms and definitions	1
4 Materials	1
4.1 General.....	1
4.2 Cement.....	1
4.3 Water.....	2
4.4 Admixtures.....	2
4.5 Additions.....	2
5 Batching and mixing of grout	2
6 Properties of grout	3
6.1 General.....	3
6.2 Sieve test.....	3
6.3 Fluidity.....	4
6.4 Bleeding.....	4
6.5 Volume change.....	4
6.6 Strength.....	4
6.7 Setting time.....	4
6.8 Density.....	5
7 Evaluation of conformity	5
7.1 Production control.....	5
7.2 Initial type testing.....	5
7.3 Audit testing.....	6
Bibliography	7

Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

The main task of technical committees is to prepare International Standards. Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights.

ISO 14824-1 was prepared by Technical Committee ISO/TC 71, *Concrete, reinforced concrete and pre-stressed concrete*, Subcommittee SC 3, *Concrete production and execution of concrete structures*.

ISO 14824 consists of the following parts, under the general title *Grout for prestressing tendons*:

- *Part 1: Basic requirements*
- *Part 2: Grouting procedures*
- *Part 3: Test methods*

Introduction

In post-tensioned prestressed concrete construction, the grouting of tendons is an important operation. The intention of this part of ISO 14824 is to provide basic requirements for the approval of cement grouts, compliance with which will satisfy the requirements in ISO 22966.

The main function of grouting is to:

- protect the prestressing steel against corrosion;
- provide a bond between the prestressing steel and the ducts where required for the design of the structure;
- allow transfer of compressive stresses in the structure in a direction transverse to internal tendons;
- fill all voids where water may accumulate and cause frost damage.

The testing regimes anticipated by this part of ISO 14824 include three levels:

- (1) initial type and audit testing in accordance with this part of ISO 14824;
- (2) suitability testing for confirmation of the selected grout for a specific project in accordance with ISO 14824-2;
- (3) inspection during grouting works on a specific project in accordance with ISO 14824-2.

The test methods for each of the regimes are given in ISO 14824-3.

In some countries requirements exist for independent third-party certification of grout and grouting procedures which should be set out in national requirements to supplement ISO 22966.

Certain special structures or tendon configurations can require grouts with enhanced performance. Any resulting necessary amendment of the requirements of this part of ISO 14824 needs to be included in the execution specification.