

ISO

INTERNATIONAL ORGANIZATION FOR STANDARDIZATION

ISO RECOMMENDATION R 160

ASBESTOS-CEMENT PRESSURE PIPES

2nd EDITION

April 1971

This second edition supersedes the first edition

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BRIEF HISTORY

The ISO Recommendation R 160, *Asbestos cement pressure pipes*, was drawn up by Technical Committee ISO/TC 77, *Products in asbestos-cement*, the Secretariat of which is held by the Association Suisse de Normalisation (SNV).

Work on this question led to the adoption of Draft ISO Recommendation No. 149, which was circulated to all the ISO Member Bodies for enquiry in October 1956. The results of this consultation having been deemed unsatisfactory, a second Draft ISO Recommendation No. 149 was submitted to all ISO Member Bodies in June 1959. It was approved by 26 Member Bodies. Three Member Bodies opposed the approval of the second Draft (Brazil, India, Mexico).

This second Draft ISO Recommendation was then submitted by correspondence to the ISO Council, which decided, in 1960, to accept it as an ISO RECOMMENDATION.

BRIEF HISTORY RELATING TO THE SECOND EDITION

Technical Committee ISO/TC 77 decided to undertake the revision of ISO Recommendation R 160-1960 in 1963. Work on this question led to the adoption of Draft ISO Recommendation No. 1895, which was circulated to all the ISO Member Bodies for enquiry in June 1970. It was approved, subject to a few modifications of an editorial nature, by the following Member Bodies :

Australia	Italy	South Africa, Rep. of
Austria	Japan	Spain
Belgium	Korea, Rep. of	Switzerland
Czechoslovakia	Netherlands	Thailand
Denmark	New Zealand	Turkey
France	Norway	U.A.R.
Germany	Poland	United Kingdom
Ireland	Portugal	
Israel	Romania	

The following Member Bodies opposed the approval of the Draft :

India	Sweden
Mexico	U.S.A.

This Draft ISO Recommendation was then submitted by correspondence to the ISO Council, which decided to accept it as the second edition of ISO Recommendation R 160.

This edition (second edition) cancels and replaces the first edition of ISO Recommendation R 160.

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ASBESTOS-CEMENT PRESSURE PIPES*

1. SCOPE

This ISO Recommendation applies to asbestos-cement pipes, and their joints, intended for use under pressure.

It defines certain conditions of manufacture, the classification, the characteristics and acceptance tests applicable to these products.

2. PIPES

2.1 Composition

The pipes should be made from a close and homogeneous mixture essentially consisting of a suitable inorganic hydraulic binder, asbestos fibre and water, excluding any materials liable to cause ultimate deterioration in the quality of the pipes**.

2.2 Classification

2.2.1 *Classes.* The pipes are classified according to the hydraulic test pressure as shown in Table 1.

TABLE 1

SERIES I

Classes (in ft H ₂ O)	Hydraulic test pressure (TP)		
	MN/m ²	kgf/cm ²	lbf/in ²
Class 200	0.6	6	85
Class 400	1.2	12	170
Class 600	1.8	18	255
Class 800	2.4	24	340
Class 1000	3	30	425

SERIES II

Classes (in kgf/cm ²)	Hydraulic test pressure (TP)		
	MN/m ²	ft H ₂ O	lbf/in ²
Class 5	0.5	165	70
Class 10	1	330	140
Class 15	1.5	495	215
Class 20	2	660	285
Class 25	2.5	825	355
Class 30	3	1000	425

* See also ISO Recommendation R 391, *Building and sanitary pipes in asbestos-cement*, and ISO Recommendation R 881, *Asbestos-cement pipes, joints and fittings for sewerage and drainage*.

** This ISO Recommendation also applies to autoclaved pipes, when the binder is partially replaced by ground silica.