AS 2876—1987

Australian Standard®

Concrete kerbs and channels (gutters) — Manually or machine placed

This Australian Standard was prepared by Committee CE/13, Concrete Kerbs and Channels (Gutters). It was approved on behalf of the Council of the Standards Association of Australia on 13 October 1987 and published on 1 December 1987.

The following interests are represented on Committee CE/13:

Association of Consulting Engineers, Australia
Australian Council of Local Government Associations
Australian Federation of Construction Contractors
Australian Precast Concrete Manufacturers Association
Australian Road Research Board
Confederation of Australian Industry
CSIRO, Division of Building Research
National Association of Australian State Road Authorities
National Ready Mixed Concrete Association

This Standard was issued in draft form for comment as DR 85131.

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CONCRETE KERBS AND CHANNELS (GUTTERS) — MANUALLY OR MACHINE PLACED

First published as AS 2876 1987

PUBLISHED BY STANDARDS AUSTRALIA
(STANDARDS ASSOCIATION OF AUSTRALIA)
1 THE CRESCENT, HOMEBUSH, NSW 2140

ISBN 0 7262 4767 7

PREFACE

This Standard was prepared by the Association's Committee on Concrete Kerbs and Channels.

The introduction of machines to construct kerb and channel occurred more than twenty years ago and although most construction is now performed by machines, the volume of concrete needed for kerb and channel still represents only a small part of the output of the ready-mixed concrete industry.

However, the incidence of problems in kerb and channel construction both major and minor, has been of concern to all parties, and this Standard has been prepared in order to deal with the various factors which can influence the quality of the finished product.

In addition, the specification for the concrete used has been simplified by placing more importance on mix proportions than on compressive strength.

The rationalization of profiles should also reduce equipment costs without restricting designers in their choice of an adequate shape.

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CONCRETE KERBS AND CHANNELS (GUTTERS)—MANUALLY OR MACHINE PLACED

1 SCOPE. This Standard specifies requirements for manually-placed or machine-placed in-situ concrete kerbs, concrete kerbs and channels (gutters), concrete kerbs and trays, and for their geometry when intended for use in the construction of carriageways and footpaths including crossing points.

2 REFERENCED DOCUMENTS. The following Standards are referred to in this Standard:

AS 1012 Methods of Testing Concrete.
- AS 1012.1 Method for Sampling Fresh Concrete.
- AS 1012.3 Methods for the Determination of Properties Related to the Consistence of Concrete.
- AS 1012.4 Methods for the Determination of Air Content of Freshly Mixed Concrete.
- AS 1012.5 Method for the Determination of Mass per Unit Volume of Freshly Mixed Concrete.
- AS 1012.8 Method for Making and Curing Concrete Compression, Indirect Tensile and Flexure Test Specimens, in the Laboratory or in the Field.
- AS 1012.9 Method for the Determination of the Compressive Strength of Concrete Specimens.
- AS 1012.12 Methods for the Determination of Mass per Unit Volume of Hardened Concrete.
- AS 1012.14 Method for Securing and Testing Cores from Hardened Concrete for Compressive Strength or Indirect Tensile Strength.
- AS 1012.15 Method for the Estimation of Portland Cement Content of Hardened Concrete.

AS 1129 Fly Ash for Use in Concrete.

AS 1289.E1.1 Methods of Testing Soils for Engineering Purposes
Part E: Soil Compaction and Density Tests—Determination of the Dry Density/Moisture Content Relation of the Soil Using Standard Compaction—Standard Method.

AS 1315 Portland Cement.

AS 1317 Blended Cement.

AS 1348.1 Road and Traffic Engineering—Glossary of Terms
Part 1: Road Design and Construction.

AS 1379 Ready-mixed Concrete.

AS 1480 SAA Concrete Structures Code.

AS 2758.1 Aggregates and Rock for Engineering Purposes
Part 1: Concrete Aggregates.

3 DEFINITIONS. For the purpose of this Standard, the definitions given in AS 1348.1 and those below apply.

3.1 Administrative definitions.

3.1.1 *Concrete manufacturer*—the person, persons or corporate body responsible for the manufacture of concrete.

3.1.2 *Designer*—the person, persons or organization responsible for the design of the structure.

3.1.3 *Engineer*—a person qualified for Corporate Membership of the Institution of Engineers, Australia or equivalent and competent to practise in the concrete structural field.

3.2 Technical definitions.

3.2.1 *Batch*—a quantity of concrete containing a fixed amount of ingredients and produced in a discrete operation.

3.2.2 *Concrete*—a mixture of cement, aggregate, water and such materials as may be permitted by this Standard, delivered to the purchaser in the plastic condition ready for use in accordance with AS 1379.

3.2.3 *Cement*—material complying with AS 1315 or AS 1317 or a mixture of either of these and fly-ash complying with AS 1129 or slag complying with AS 1317 where the proportion of fly-ash or slag in the cement is not greater than that permitted by AS 1317.

3.2.4 *Manually-placed concrete*—formed when concrete is placed and compacted between previously placed formwork by hand.

3.2.5 *Machine-placed concrete*—formed when concrete is compacted and extruded from a machine designed principally for that purpose.

3.2.6 *Shrinkage-control joints*—specific zones of weakness to locate the cracking caused by drying shrinkage.

3.2.7 *Construction joints*—joints where new work meets old work (except at major constructions such as bridges, culverts, etc).

3.2.8 *Expansion joints*—joints where thermal expansion of the concrete will occur and is likely to exceed the joint dimension (width) provided at shrinkage-control joints.

4 MATERIALS.

4.1 Quality. The quality of the concrete and materials for kerbs and channels shall comply with AS 1379.

4.2 Handling, storage and batching of materials. The handling, storage and batching of materials shall comply with AS 1379.