International Standard 6274

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Concrete — Sieve analysis of aggregates

Béton — Analyse par tamisage des granulats

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Foreword

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Draft International Standards adopted by the technical committees are circulated to the member bodies for approval before their acceptance as International Standards by the ISO Council.

International Standard ISO 6274 was developed by Technical Committee ISO/TC 71, *Concrete, reinforced concrete and pre-stressed concrete*, and was circulated to the member bodies in August 1978.

It has been approved by the member bodies of the following countries:

Australia	Germany, F. R.	Poland
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Canada	Italy	Spain
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The member bodies of the following countries expressed disapproval of the document on technical grounds :

Belgium
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Concrete — Sieve analysis of aggregates

1 Scope and field of application

This International Standard specifies a method, using test sieves, for the determination of the particle size distribution of normal weight aggregates for concrete.

2 References

ISO 565, *Test sieves — Woven metal wire cloth and perforated plate — Nominal size of apertures.*

ISO 2395, *Test sieves and test sieving — Vocabulary.*

ISO 2591, *Test sieving.*

ISO 3310/1, *Test sieves — Technical requirements and testing — Part 1 : Test sieves of metal wire cloth.*

ISO 3310/2, *Test sieves — Technical requirements and testing — Part 2 : Test sieves of metal perforated plate.*

ISO 4847, *Concrete — Sampling of normal weight aggregates.*[1)]

3 Sampling

The sample shall be taken and reduced in accordance with ISO 4847.

4 Apparatus

4.1 Balance or **scale,** accurate to 0,1 % of the total mass of the test sample.[2)]

4.2 Test sieves, with square apertures, complying with the requirements of ISO 565, ISO 2591 and ISO 3310. The sieves used shall conform to one of the series given in the table, series A being recommended.

Any additional sizes shall be chosen from ISO 565.

For aperture size of 4,00 mm and above, perforated plate sieves are recommended.

Table — Test sieve aperture sizes

Values in millimetres

Series A	Series B	Series C
63,0	75,0	80,0
31,5	37,5	40,0
16,0	19,0	20,0
8,00	9,50	10,0
4,00	4,75	5,00
2,00	2,36	2,50
1,00	1,18	1,25
0,500	0,600	0,630
0,250	0,300	0,315
0,125	0,150	0,160
0,063	0,075	0,080

4.3 Tightly fitting pan and **lid,** for the sieves.

4.4 Well ventilated oven, thermostatically controlled to maintain a temperature of 105 ± 5 °C.[3)]

5 Procedure

5.1 Preparation of test sample

The minimum dry-mass of the test sample, in kilograms, shall be 0,2 times the nominal maximum aggregate size, in millimetres. Aggregates containing substantial amounts of fine particles may be moistened before reduction to minimize segregation and loss of dust. Reduction shall be carried out by use of a sample divider or by quartering, and shall yield a test sample of mass larger than the minimum but not of an exact predetermined value. Before weighing and sieving, the

1) At present at the stage of draft.

2) For field applications, a reduced accuracy of 0,5 % of the sample mass is considered sufficient.

3) If such an oven is not available under field conditions, other suitable equipment for drying the aggregates to constant mass may be used.