

JIS A 5023
Amendment Point of JIS for Recycled Aggregate
for Concrete class L

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Main body of standard for JIS A 5023
(The target is concrete)



Title of standard for JIS A 5023

**Recycled Concrete using recycled aggregate class L
(until supplement revision in 2016)**



Recycled aggregate concrete L



The title shall be mainly changed together with JIS A 50

***In JIS A 5022, the recycled aggregate concrete M can be manufactured without using recycled aggregate M**

***However recycled aggregate concrete L must be used recycled aggregate**

Classification of recycled aggregate concrete L

Simplifying of classification and additional of slump



of "Salinity regulation class" and "Specification ordering class"



"Designation and Agenda" is newly added and chlorides and air content shall be designated in this section

- *The specification ordering class is mostly not ordered however the product of which only slump is different from that is often**
- *The classification is complicated.**

Classification of recycled aggregate L (regarding slump)

SL=8, 15, 18cm (until supplement revision in 2016)



SL=8, 10, 12, 15, 18cm



- *The product of which slump is as same as normal concrete is used
- *According to the result of manufacture and quality management, 10 and 12 shall be no problem.



Classification of recycled aggregate L (agenda designated by discussion)

4 .Classification

- a) Classification of cement (designated)
- b) Maximum size of coarse aggregate (designated)
- c) Types of admixture and consumption
- d) Upper limit of chloride content (in accordance with 5.4, under 0.3kg under 0.6kg/m³ (the value is as same as former standard))
- e) Material age which ensure the nominal strength (other than 28days is accepted)
- f) Air content (it may be managed at shipping site)
- g) When using mixed aggregate, volume mixture ratio of recycled coarse aggregate L and recycled fine aggregate L (the definition is added)
- h) Other necessary agenda

***The designation shall be judged by the purchaser.
Therefore the purchaser shall understand the character
of recycled aggregate concrete L.**

Inspection items and frequency (11.)

*Items : The basic items are slump and compressive strength (at site or at shipping site)(air content and chloride content will be added)

*Frequency of Inspection : Changing from the frequency based on the term to based on the amount of manufacture

Classification of concrete

- Nominal strength more than once for each items of concrete
- Division of slump shipping day



*Not by means of amount of manufacture
*High frequency is not rational

Compressive strength (slump, air also) : 1time / 150m³

For strength test

- Relation of W/C vs. f'c is same and same nominal strength
- The product may be judged as a same lot even if the slump is different

JIS A 5023 Annex A (normative)
(The target is recycled aggregate L)



Alkali-silica reactivity

The condition as “harmless” shall not be changed.



The identification of original aggregate is possible at unloading site (A5021)



The method can be used also for recycled aggregate



Identification of original aggregate + Judgement as “harmless” by alkali-silica reactivity test = “Harmless”



Chloride content

**In accordance with 5.5 of JIS A 5002
pH shall be adjusted about 7
(until supplement revision in 2016)**



*For soluble chloride

- **Elution of Cl^- ion into liquid phase : in accordance with**
- **Analyzing shall be in accordance with JIS A 1144**
(Method of test for chloride concentration in water of fresh water)
→The value is four times of the result of inspection (uncertainty)

*For whole chloride content

- **JIS A 1154 shall be added**
(no coefficient as to measure whole chloride content)

**Extra
edition**

**Recycled aggregate L for
JIS A 5022 (RAC- M)**

- *The upper limit of amount of impurities shall be the same as that for recycled aggregate M**
- *When mixture with the aggregate conform to Annex A of JIS A 5022 (without artificial lightweight aggregate), the mixed aggregate shall satisfy the required quality of recycled aggregate M.**
- *The frequency of inspection (lot size) shall be also as same as that for recycled aggregate M.**

以上

