1. Scope
This test method is suitable for the assessment of aggregates for Alkali Silica Reactivity and also for Alkali Carbonate Reactivity. The test follows AS 1012.13, except where noted below.

2. Apparatus
Apparatus shall be as used in AS 1012.13 except that:
(a) The drying room shall be replaced by a moist cabinet maintained at 38°C and at least 98% relative humidity

3. Procedure
The test is performed on duplicate specimens of concrete prisms and as per AS 1012.13 except that:
(a) Components of the mix shall be in accordance with the design and a minimum cement content equivalent to 420 Kg/m³.
(b) Mixing water shall be intermixed with sodium hydroxide, so that the level of cement alkali is adjusted to 1.38% Na₂O equivalent.
(c) All initial measurements shall be performed in a constant temperature room of 23+/- 2°C. All further measurements shall be performed after the specimens have recovered in the 23 +/- 2°C room overnight.
(d) Length measurements shall be carried out weekly in the first month and twice a month in next two months and then monthly up to age of one year, commencing from time of placing into the moist cabinet.
(e) Clause 8 of AS 1012.13, shall be replaced with clause 3 of this method.

4. Calculations and Reporting
The expansion is calculated as follows:
(a) For each period of storage time, subtract the mean initial length (mm), from the length measured, at that time (mm).
(b) Divide the difference obtained at step (a) by the original effective gauge length of 250 mm.
(c) Calculate the percentage expansion relative to the gauge length of 250 mm.

For each period of storage time for the one sample of concrete, calculate the average expansion of the duplicate results.

5. Aggregate Classification
Aggregate shall be classified as either:
(a) reactive when the average expansion at 12 months is greater than 0.03%, or
(b) non reactive when the average expansion at 12 months is equal to or below 0.03%.