

Table 3-4: Durability Properties for Concrete Tests

TYPE OF CONCRETE DESCRIPTION OF TEST	OPC Concrete	Silica Fume Concrete (SF)	GGBS Concrete	PFA Concrete	Waterproof Concrete (WPC)
Rapid Chloride Permeability (RCP) to AASHTO T277 Max Charge Pass (Coulombs) at 28 days	3,800	1,000	1,200	1,200	800
Water Permeability (SWP) to DIN 1048 Max Penetration (mm) at 28 days	20	10	10	10	8
Initial Surface Absorption Test (ISAT) to BS 1881 Part 208: Maximum ISAT at 28 days: 10 minute test (ml/m ² /s)	0.3	0.15	0.15	0.15	0.02
30 Minute Absorption (WA) to BS 1881 Part 122: 30 minute test (at 7 days unless noted otherwise)	2.0%	1.5%	1.5%	1.5%	1.0%

2. The durability test results will be deemed to be acceptable only if both of the following conditions are met:

- a. The average value of all of the results for each test on each type of concrete is less than or equal to the pertinent value in the above table.
- b. Each test shall be given a weighting of unity and the overall score of the four durability test results on each set of samples shall be evaluated in accordance with the following formula:

$$\text{Score} = (\text{RCP}/800) + (\text{DIN}/8) + (\text{ISAT}/0.02) + (\text{WA}/1.0)$$

Where

RCP = measured value from the Rapid Chloride Permeability test to AASHTO T277 in Coulombs

DIN = measured value from the Water Permeability test to DIN 1048 in mm

WA = measured value from the Water Absorption test to BS1881 Part 122 expressed as a percentage

ISAT = measured value from the Initial Surface Water Absorption test to BS1881 Part 208 expressed in ml/ (mm².s)

The score for each set of samples shall comply with the following values: