

CASTinTACT®

Concrete Tactile Warning Panels

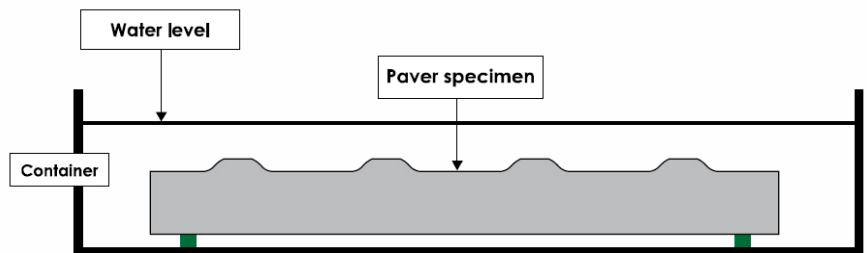
Freeze-Thaw Durability

ASTM C 1645 Freeze-Thaw and De-icing Salt Durability | Using a 3% saline solution

ASTM C-936 standards for concrete pavers have requirements for freeze-thaw and De-icing Salt durability. This test method covers the resistance to freezing and thawing of solid concrete paver units. Units are tested either in water or a saline solution depending on the intended use of the units in actual service.

The CASTinTACT® panels were fully immersed in a 3% saline solution and subjected to 25 or 50 cycles of freezing and thawing. The pavers are allowed to have a maximum loss of 200 g/m² at 25 cycles. If an individual specimen exceeds 200 g/m², the test shall continue until 50 cycles. If an individual specimen exceeds 500 g/m², pavers have failed.

CASTinTACT® is manufactured with high performance concrete having a dense impermeable matrix to resist damaging effects of freeze thaw cycles and deicing chemicals.



Test Setup for Fully Submerged Scaling Test

25 Cycles			
Specimen	Cumulative Residue Weight (g)	Calculated Initial Weight (g)	Loss (grams/square meter)
A	0.22	1053.81	4.40
B	1.31	965.61	26.20
C	0.66	1081.18	13.20
D	0.35	1056.62	7.00
E	0.13	1084.83	2.60
Average			10.68

50 Cycles			
Specimen	Cumulative Residue Weight (g)	Calculated Initial Weight (g)	Loss (grams/square meter)
A	0.51	1053.81	10.20
B	7.91	965.61	158.20
C	1.08	1081.18	21.60
D	0.72	1056.62	14.40
E	0.43	1084.83	8.60
Average			42.60