

CERTIFICATE OF TEST RESULTS

NOVEMBER 2014

THIS IS TO CERTIFY THE INSPECTION RESULTS OF THE FOLLOWING ITEMS

DESCRIPTION : DENKA CSA#20
 MONTH OF MANUFACTURE : NOVEMBER 2014
 LOT No. : 4K3269

1.CHEMICAL COMPOSITION

ITEM	J I S A 6202	TEST RESULT
MgO(%)	≤ 5.0	1.6
IGNITION LOSS(%)	≤ 3.0	1.0
Na ₂ O(%)	—	0.03
K ₂ O(%)	—	0.06
Na ₂ Oeq(%)	≤ 0.75	0.07
Cl ⁻ (%)	≤ 0.05	0.03

$$\text{Na}_2\text{Oeq} = \text{Na}_2\text{O} + \text{K}_2\text{O} \times 0.658$$

2.PHYSICAL PROPERTY

ITEM	J I S A 6202	TEST RESULT	
SPECIFIC GRAVITY(g/cm ³) ⁽¹⁾	—	2.95	
SPECIFIC SURFACE AREA BY BLAINE METHOD(cm ² /g) ⁽²⁾	≥ 2000	2760	
SIEVE 1.2mm UPPER (%) ⁽³⁾	≤ 0.5	0.0	
SETTING TIME ⁽⁴⁾	INITIAL(min)	≥ 60	90
	FINAL(hr)	≤ 10	3
EXPANSION (LENGTH CHANGE) (%) ⁽⁵⁾	7DAYS	≥ 0.025	0.049
	28DAYS*	≥ -0.015	0.014
COMPRESSIVE STRENGTH (N/mm ²) ⁽⁶⁾	3DAYS	≥ 12.5	29.8
	7DAYS	≥ 22.5	41.5
	28DAYS*	≥ 42.5	53.3

Remarks : Test Method (1) (2) (4) ; JIS R 5201
 (3) (5) (6) ; JIS A 6202

* THE VALUE OF THE TEST RESULT AT THE LAST MONTH

DENKI KAGAKU KOGYO KABUSHIKI KAISHA
 INFRASTRUCTURE & INORGANIC MATERIALS
 SPECIAL CEMENT ADDITIVES DEPT.



K.IRIUCHIJIMA / MANAGER