

CERTIFICATE OF PRODUCT CONFORMITY

Dubai Central Laboratory Department (DCLD) of Dubai Municipality
hereby attests that the product(s)

Concrete Admixtures

(Details as per the attached Scope of Certification)

manufactured by:

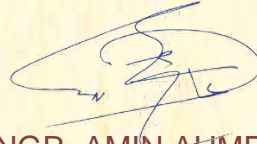
CEMENTAID(S.E.A.) PTE LTD

12 NEYTHAL ROAD, JURONG TOWN, SINGAPORE 628578

have been assessed in accordance with DCLD Document Ref. No. DM-DCLD-RD-DP21-2001 (IC) "General Rules for DM third party product certification system through factory assessment" and the relevant Specific Rules, and were found in conformity with the standard specification:

BS EN 934-2: 2009

Accordingly, DCLD hereby authorizes the above manufacturer
to affix the DCL Product Conformity Mark on the above-mentioned product(s).



for / ENGR. AMIN AHMED AMIN
Director, Dubai Central Laboratory Department
Dubai Municipality



Certificate No: CL18020546
Valid Until: 24/01/2020



Current Issue Date: 25/01/2019
Original Issue Date: 25/01/2018

The attached Scope of Certification bearing the same Certificate Number forms an integral part of this Certificate.
This Certificate is an electronic document subject to the Terms and Conditions of the Product Certification System and shall not be reproduced except in full.



**DUBAI CENTRAL LABORATORY DEPARTMENT
DCL PRODUCT CONFORMITY CERTIFICATION SCHEME**

**SCOPE OF CERTIFICATION
FOR CERTIFICATE NO. CL18020546**

Certificate Issued To: CEMENTAID (S.E.A) PTE LTD
12 NEYTHAL ROAD, JURONG TOWN, SINGAPORE 628578

Applicable Standard Specification: BS EN 934-2:2009 Admixtures for concrete, mortar

Applicable Specific Rules: RD-DP21-2195(IC) Specific rules for concrete admixtures as per BS EN 934-2 :2009

S/N	Product Description	Brand Name	Product Details
1	water resistance concrete admixture	CALTITE	<ol style="list-style-type: none"> 1- Caltite comprises an aqueuse, hydrophobic liquid (water resisting concrete admixture) that provide water proofing pore-blocking and enhanced durability of concrete properties. 2- Caltite is suitable for use in basements, roofs, swimming pool, tunnels and culverts. 3- Caltite is compatible with cement blends containing fly ash, GGBS. and micro silica 4- Caltite is satisfactory use in concrete with rate of 30 liters/m³ and a minimum content of cement 335 kg/m³ .
2	water resistance concrete admixture	3CC	<ol style="list-style-type: none"> 1- 3CC comprises an aqueuse, hydrophobic liquid (water resisting concrete admixture) that provide water proofing pore-blocking and enhanced durability of concrete properties. 2- 3CC is suitable for use in basements, roofs, swimming pool, tunnels and culverts. 3- 3CC is compatible with cement blends containing fly ash, GGBS. and micro silica . 4- 3CC is satisfactory use in concrete with rate of 15liters/m³ and a minimum content of cement 335 kg/m³ .

DUBAI CENTRAL LABORATORY DEPARTMENT DCL PRODUCT CONFORMITY CERTIFICATION SCHEME

SCOPE OF CERTIFICATION FOR CERTIFICATE NO. CL18020546

Below table 1 shows the properties Caltite when tested and compared with plain concrete (control mix)

Table 1

Properties	Test method	Control mix	Caltite
Caltite dosage		-	30l/m ³
Slump (mm)	BS EN 12350-2, Slump test.	80	70
Bleeding	BS EN480-4	0	0
Fresh density kg/m ³	BS EN 12350-6	2470	2450
initial setting time	ASTM C 403	4:43	4:50
final setting time	ASTM C 403	6:20	6:35
Air content (%)	ASTM C231 - Pressure Method.	1.7	1.6
Compressive strength@ 28 days N/mm ²	BS 1881 -P116	50.5	43.0 85.1 %from control mix
Capillary absorption gm/mm ²	BS EN 480-5	0.0135	0.002
ISAT mL/(m ² .s)	BS 1881 : P208	0.01	0.01
Water Absorption@ 28 days (%)	BS 1881 - 122	2	0.5
Depth of penetration (mm)	BS EN 12390 - 8	6	1
Chloride as CL (%) by Mass of cement	BS 1881 P124	0.06	0.05
Sulphate As SO ₃ (%) by mass of cement	BS 1881 P124	2.2	2.0
pH	ISO 4316	-	10.6
Density g/ml	ISO 758	-	1.000
Conventional dry material % by wt	BS EN 480-8	-	13.7
Total Alkali Content (as Na ₂ O equivalent) % by wt Anions	BSEN 480-12	-	0.02
Water soluble chloride as Cl	BS EN 480-10:2009	-	<0.01

Note: This property shown in this table is dependent on the concrete mix design. The purpose of this testing scheme was to show that the product enhances the concrete property and it was not intended to check the appropriateness of the concrete mix design used in the study.

DUBAI CENTRAL LABORATORY DEPARTMENT DCL PRODUCT CONFORMITY CERTIFICATION SCHEME

SCOPE OF CERTIFICATION FOR CERTIFICATE NO. CL18020546

Below table 2 shows the properties 3CC when tested and compared with plain concrete control mix
Table -2

Properties	Test method	Control mix	3CC
3CC dosage	-	-	15L/m ³
Flow (mm)	BS EN 12350-2, Slump test.	80	70
Bleeding	BS EN480-4	0	0
Fresh density kg/m ³	BS EN 12350-6	2470	2450
initial setting time	ASTM C 403	4:43	4:50
final setting time	ASTM C 403	6:20	6:35
Air content (%)	ASTM C231 - Pressure Method.	1.7	1.7
Compressive strength@ 28 days N/mm ²	BS 1881:P116	54.0	54.0 100%from control mix
Capillary absorption gm/mm ²	BS EN 480-5	0.0135	0.002
ISAT mL/(m ² .s)	BS 1881 :P208	0.01	0.02
Water Absorption@ 28 days(%)	BS 1881 - 122	2	0.8
Depth of penetration (mm)	BS EN 12390 - 8	6	7
Chloride as CL (%) by Mass of cement	BS 1881 P124	0.06	0.06
Sulphate As SO ₃ (%) by mass of cement	BS 1881 P124	2.2	2.0
pH	ISO 4316	-	10.5
Density g/ml	ISO 758	-	0.96
Conventional dry material content % by wt	BS EN 480-8	-	12.1
Total Alkali Content (as Na ₂ O equivalent) % by wt Anions	BSEN 480-12	-	0.02
Water soluble chloride as Cl	BS EN 480-10:2009	-	0.01

Note: This property shown in this table is dependent on the concrete mix design. The purpose of this testing scheme was to show that the product enhances the concrete property and it was not intended to check the appropriateness of the concrete mix design used in the study.

**DUBAI CENTRAL LABORATORY DEPARTMENT
DCL PRODUCT CONFORMITY CERTIFICATION SCHEME**

**SCOPE OF CERTIFICATION
FOR CERTIFICATE NO. CL18020546**

NOTE1: *This document forms part of the Certificate of Product Conformity bearing the same certificate number.*

NOTE2: *The above product shall bear the DCL Conformity Mark.*

Original Issue Date : 25/01/2018
Current Issue Date : 25/01/2019
Valid Until : 24/01/2020



ARIF HUSAIN AL MARZOOQI
Products Conformity Assessment Section Manager
Dubai Central Laboratory Department