



दिल्ली सरकार  
GOVT. OF NCT OF DELHI  
लोक निर्माण विभाग  
PUBLIC WORKS DEPARTMENT



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दिनांक: 12.09.2025

संशोधित कार्यालय ज्ञापन

**विषय : Acceptance criteria for Crystalline Admixtures used in RCC works.**

It is evident that lot of projects are under construction under Project Region of PWD, GNCTD in which there is a provision of Crystalline Admixtures to be used in RCC works.

For all ongoing works as well as future works it, shall be ensured that the technical parameter given in CPWD Specifications 2019, Vol. II are strictly adhered to and supported by test reports from the labs which actually possess the in-house testing facilities to test these products.

Thus, it is enjoined upon all Executive Engineers and their subordinate staff that these tests may only be conducted from CBRI, Roorkee, IIT Madras & IIT Bombay which have their own in-house testing facilities of these products. It should also be ensured that, these tests are not outsourced to any other outside laboratory by these Institutes. Only the tests performed in the in-house facilities shall only be accepted.

The technical parameters given in technical CPWD Specification 2019, Vol.II are listed as per **Annexure- 'A'** attached herewith.

The test report must contain the values against each parameter in compliance to CPWD technical Specification 2019, Vol. II.

All SEs should monitor periodically to ensure compliance of this office memorandum.

The earlier OM issued vide no. 23(46)/अपर महा.नि.(परि.)/2025-26/2253 dated 09.09.2025 is hereby

प्रमुख अभियंता withdrawn.

आवृत्ति सं. संलग्न: Annexure-A

दिनांक 14.06.28

प्रमुख अभियंता 15/09/25

निदेशक (परि. वि.)

प्रतिलिपि:

1. प्रमुख अभियंता, लो.नि.वि. (दिल्ली सरकार), बारहवां तल, एम.एस.ओ. भवन, नई दिल्ली।
2. मुख्य अभियंता (परियोजनाएं), लो.नि.वि. (दिल्ली सरकार), प्रथम तल, एम. एस. ओ. भवन, नई दिल्ली।
3. मुख्य अभियंता (जे एंड पी), लो.नि.वि. (दिल्ली सरकार), तेरहवां तल, एम.एस.ओ.भवन, नई दिल्ली।
4. मुख्य अभियंता (स्वास्थ्य), लो.नि.वि. (दिल्ली सरकार), दुसरा तल, एम.एस.ओ.भवन, नई दिल्ली।
5. परियोजना क्षेत्र के आधीनस्थ सभी संबंधित अधीक्षण अभियंता एवं कार्यपालक अभियंता, लो.नि.वि. (दिल्ली सरकार), नई दिल्ली।

Pls upload on PWD website

AAO/E.inC

12/09

12.09.2025  
(प्रदीप गुप्ता)  
अपर महानिदेशक (परियोजनाएं)

# **CHECKLIST FOR INTEGRAL CRYSTALLINE ADMIXTURE IN COMPLIANCE TO CPWD's TECHNICAL SPECIFICATIONS 2019, VOL. II**

Test reports from any CBRI ROORKEE / IIT BOMBAY / IIT MADRAS shall be furnished by principal manufacturer in token of authenticity of test. As per Environment Ministry, the product must be CE & NSF approved

Sr. No.	Technical Parameter in reference to CPWD Technical Specification (Item No. 22.14.2 - Page No. 1183-1185)	Description	Remark (Test reports from in-house testing facility from CBRI ROORKEE / IIT BOMBAY / IIT MADRAS shall be furnished by manufacturer)	
			YES	NO
1 (a)	Point No. 1 of CPWD Tech Spec 2019	Material must fulfill the requirements of ACI-212-3R-10 Chapter 15 or European Norms EN 934-2. Reduction in permeability of concrete should be more than 90% (Preferably ZERO Permeability), when compared with control concrete as per DIN 1048.		
1 (b)	Point No. 1 of CPWD Tech Spec 2019	Shall be capable of withstanding/resistant to Hydrostatic pressure upto 16 bars		
2	Point No. 2 of CPWD Tech Spec 2019	Integral crystalline admixture must be compatible with any other concrete admixture. Confirming to ASTM D494, EN 934-2 or IS 9103		
3	Point No. 3 of CPWD Tech Spec 2019	The crystalline admixture must perform at any water/cement ratio of the concrete mix. Performance report on crystalline admixed concrete to conclude it has no side effect on slump, workability, strength on any other compatibility of concrete		
4 (a)	Point No. 4 of CPWD Tech Spec 2019	The integral crystalline admixture shall possess CE approval as per EN 934-2		



4 (b)	Point No. 4 of CPWD Tech Spec 2019	No corrosion effect on reinforcement steel according to test norm DIN V 18998		
		Maximum chloride content less than 0.1%		
		Maximum alkali content less than 9.3%		
5	Point No. 5 of CPWD Tech Spec 2019	Resistance to Hydrostatic pressure upto 16 bars		
6	Point No. 6 of CPWD Tech Spec 2019	RCPT Test - The material must reduce chloride diffusion coefficient by minimum 45% as compared with control concrete as per ASTM C 1556-4		
7	Point No. 7 of CPWD Tech Spec 2019	Self-Healing of cracks Upto 0.5mm.		
8	Point No. 8 of CPWD Tech Spec 2019	Crystalline admixture shall not be affected by wear abrasion of the treated concrete surface and crystalline treated concrete shall not require protection layer.		
9	Point No. 9 of CPWD Tech Spec 2019	Crystalline admixture shall be non-toxic and shall confirm to NSF-61 USA (Potable water Compatibility)		
10	Point No. 10 of CPWD Tech Spec 2019	Product must possess third party assurance confirming that the product when used in the concrete will have no detrimental side effects in terms of alkali silica reaction (ASR) corrosion of steel reinforcement		
11	Point No. 11 of CPWD Tech Spec 2019	Manufacturer guarantee for Standalone Crystalline Admixture performance for 10 years		
12	Point No. 12 of CPWD Tech Spec 2019	Manufacturer shall produce national/international test report of scanning electrons microscopic (SEM) Photographs dandified & mature crystal formation to plug all the capillary tract & pores of the concrete. SEM analysis from repute laboratory for self healing of cracks in concrete		

*Cpi*