



ELASTOMERIC PAINTABLE PLASTER

User should check the validity of the Certificate by contacting Member Secretary, BMBA at BMTPC or the Holder of this Certificate.

Name and Address of the Certificate Holder:
M/s Xylo Paints
1842, HSIIDC, Rai Industrial Area, Rai, Dist. Sonipat (Haryana)
Email: xylo@xylopaints.com

Performance Appraisal Certificate No.
PAC No.: **1054-P/2020**
Issue No.: **01**
Date of issue: **13/01/2020**



bmtpc

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PERFORMANCE APPRAISAL CERTIFICATE


FOR

**Magic Xp - Elastomeric Paintable Plaster
(For Crack-Free & Water Resistant Walls)**

ISSUED TO

M/s XYLO PAINTS

STATUS OF PAC NO: 1054-P/2020

S. No	Issue No.	Date of Issue	Date of renewal	Amendment		Valid up to (Date)	Remarks	Signature of authorized signatory
				No.	Date			
1	2	3	4	5	6	7	8	9
1	1	13/01/2020	13/01/2021			12/01/2021	--	

PAC No. 1054-S/2020

Issue No. 01

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PART 1 CERTIFICATION

1.1 Certificate Holder: M/s Xylo Paints
1842, HSIIDC
Rai Industrial Area, Rai
Dist. Sonipat (Haryana)
Email: xylo@xylopaints.com

1.2 Description Of System

1.2.1 Name of the System– Elastomeric Paintable Plaster

1.2.2 Brief Description

Elastomeric Paintable Plaster is a paste made with minerals, plasticizers and exterior grade polymers to be used as a putty /plaster / water proofing film. It could be used as a binding material to paste tiles, stones and bricks. The product has following characteristics:

- **Elastomeric :** Can expand and contract to the climatic conditions.
- **Paintable :** The surface after is ready to be painted. No primer required.
- **Plaster:** If applied thick , it could be called as a plaster and when applied thin it is called as
- **Co-efficient of Expansion:** Has an excellent co-efficient of expansion. Does not crack between temperature of 0-50 degree Celcius.
- **Exterior Grade:** Can be used in the exteriors and interiors .
- **Water Resistant:** Is an excellent water repellent. Will not allow the water to penetrate. Can be used as a water proofing agent.
- **Crack Free :** Can be used as a crack filler and also ensure that cracks do not develop on the entire plane. Can be used as a **Preventive n Corrective measure.**
- **Surface cracks :** Hairline cracks on the plaster can be eliminated completely
- **Structural Cracks:** Such cracks can be eliminated with *Elastomeric Paintable Plaster* and nylon mesh .
- **Joints of Cement Boards , Gypsum Boards , MDF Boards etc** can be sealed to ensure a seamless and undulation-free surface
- **AAC Blocks:** Blocks can be pasted with *Elastomeric Paintable Plaster* to create partitions and can be used as a paintable plaster to ensure a crack-free finish.
- **RCC Structure/Ceiling:** Can be applied on such surfaces directly without hacking or using a bond.
- **Tiles / Stones** can be pasted with this directly on any surface , AAC Blocks and RCC surfaces because of its excellent adhesion properties
- **Elastomeric Paintable Plaster** can be made available in colours to cut down on the cost of painting.

- **Pre-mixed paste form.** No need to add or delete anything. No adulteration is possible.
- **Wastage** is ZERO. No residue is left during application .
- **No curing** required and it is self curing.
- **Eco-friendly** . No waste in application .
- **Self Levelling.** Can be used as a levelling compound.
- **Human friendly.** No need to sand the surface. (Sanding creates fine particles which are inhaled by the workers). Does not affect the skin or any body parts.
- **Cost Effective.** The sequence of the activities is reduced and hence helps speedy execution and at lesser cost.
- **Saving of Natural Resources** like sand and water.
- **When applied** thick , the intermittent reinforcing could be nylon mesh of 80 to 100 microns. The net must be of squares of 5-7 mm .

1.3 **Uses, Limitations/Precautions for Walls**

1.3.1 **Utility Areas :**

- Fine / Coarse Sand Plaster
- Cement Board / Cement Panels / Gypsum & Silicate Boards
- P.O.P. / Pre-painted Surface
- RCC / Myvon / Modular Constructions
- AAC Bricks and Plastering
- Punning on AAC and Concrete Blocks
- Tile and Granite Pasting
- Wooden Surface Jointing and Finishing
- Water Proofing on Terrace and Pools

1.3.2 **Limitations :**

- Must be loaded in layers of 2-3 mm.
- On a thicker application of the material in a single coat , the material shrinks and crevices may be formed.
- The crevices are filled in the subsequent coat to make the product homogeneous again.

1.3.3 **Precautions to be taken:**

- Ensure that the substrate is completely dry , stable and free of any loose particles.

1.4 Basis of Assessment

1.4.1 Scope of Assessment

1.4.1.1 Scope of assessment included application of *Elastomeric Paintable Plaster* on bare bricks , on a plastered wall , on worn off plastered wall due to water seepage and pre-painted walls. Also , specified requirements for external and internal applications for commercial / residential buildings, schools, hospitals, , pre-fab structure , pre-engineered building, modular constructions ,factories and malls etc.

1.4.2 Basis of Assessment

Assessment of the suitability as an effective alternative to plaster and painting:

- (i) Tests conducted shows excellent adhesion
- (ii) Tests conducted shows excellent wash ability
- (iii) Gives a smooth, and non –water absorbent surface.
- (iv) Application of the material over an acrylic sheet demonstrated flexibility.

1.5 Machinery & Equipment

The following equipments are required for the manufacturing:

Sl.No.	Name of the Machine	Make
1	2	3
1.	Pug mill	Indian
2.	Material Loading machine	Indian
3.	Digital Weighing Machine	Indian
4.	Bag Stitching Machine	Indian

1.6 Typical Activity

Typical Activity for construction using **MAGIC Xp- Elastomeric Paintable Plaster** are as follows:

Activity of EPP on a plastered wall, POP, and Pre-painted wall

Sequence of Activities

- 1) Clear the surface of any loose particles with an emery paper or blade
- 2) Apply the *EPP* on the wall with a trowel in one direction

- 3) Remove the excess material by moving the trowel/blade in the opposite direction
- 4) Ensure that there are no blade marks .
- 5) The finished surface will be smooth and non-water absorbent.

Activity of EPP on a dry wall Like, Cement Board , Sandwich Panel , RCC& Block joints

- 1) Apply the EPP material on the joints and move it on all the sides to ensure that the cavity is filled.
- 2) Apply the EPP on the joints with a trowel to a thickness of 1.5 mm and fix the fibre tape of 80-100 micron thick and 100mm width over it and remove the excess material.
- 3) Apply EPP in two or more coats on the entire surface to level the joints by moving the trowel/blade in the opposite direction
- 4) Ensure that there are no blade marks . The blade marks can be removed by removing the excess material by moving the blade in a criss-cross manner.
- 5) The finished surface will be smooth and non-water absorbent.

1.7 Conditions of Certifications

1.7.1 *Technical Conditions*

- 1) Raw materials shall conform to the requirements of the prescribed specifications.
- 2) The lab of XYLO PAINTS shall provide full details of manufacture process and quality of the material for production .
- 3) The Certificate is being issued after ensuring that all related parameters are met before dispatched.

1.7.2 *Quality Assurance*

The Certificate Holder shall implement & maintain a quality assurance system in accordance with Quality Assurance Plan (QAP) given in Annex I attached with this Certificate.

1.7.3 *Handling of User Complaints*

- 1.7.3.1** The Certificate holder shall provide quick redressal to Consumer/user complaints proved reasonable & genuine and

within the Conditions of warranty provided by it to customer/purchaser.

1.7.3.2 The Certificate holder shall implement the procedure included in the Scheme of Quality Assurance (SQA). As part of PACS Certification, he shall maintain data on such complaints with a view to assess the complaint satisfaction and suitable preventive measures taken.

1.8 Certification

1.8.1 On the basis of assessment given in Part 3 of this Certificate & subject to the Conditions of Certification, use & limitations set out in this Certificate and if selected, installed & maintained as set out in Parts 1 & 2 of this Certificate, the Xylo Paints covered by this Certificate are fit for use set out in the Scope of Assessment.

PART 2 CERTIFICATE HOLDER'S TECHNICAL SPECIFICATION

2.1 General

2.1.1 The PAC holder shall provide services in accordance with the requirements specified in the relevant Standards. In addition, it shall follow the Company standards specifying requirements of various materials used in the manufacture of the panels (see Part 5).

2.2 Specifications

2.2.1 *Raw Materials Process Specifications:*

- (i) OPC shall conform to relevant grade of Indian Standard.
- (ii) Minerals must confirm the quantity of calcium carbonate.
- (iii) The mesh size of the minerals must be confirmed with the relevant sieves
- (iv) The residue in the sieve should not be beyond 0.3% to 0.6%
- (v) The water should not be alkaline and sufficient chemicals to be put to negate the effect of alkaline water
- (vi) The polymer must be mixed when the pH value of the paste formed is around 7.5 to 7.7.
- (vii) The temperature of the mix must be less than 30degree Celcius while mixing the polymers .
- (viii) Enough bio-cide must be mixed to ensure a shelf life of minimum 12 months.
- (ix) The packaging must be done in an air tight container/ polythene.

2.3 Design Parameters

XYLO PAINTS will provide the application procedure for various applications. The manual will contain detailed application procedure with specifications.

2.4 Manuals

PAC holder shall provide Construction, Installation and Quality Manuals and necessary diagrams, drawings, detailing to the customers and/or their structural designer.

2.5 Skilled/Training Needed for Installation

Skilled labourers like carpenter, masons shall be trained on the system and other unskilled labourers shall be trained in max. 7 days' time by the PAC holder. Training shall be conducted on or off site depending upon the numbers.

2.6 Guarantees/Warranties Provided by the PAC Holder

XYLO PAINTS warrants to the Client and the Architect/client that all materials and equipment furnished under this Contract shall be fit for their intended purpose, unless otherwise specified. All work shall be of good quality, free from faults and defects and in conformance with the Contract Documents. All work not conforming to these requirements, including substitutions not properly approved and authorized, may be considered defective. If required by the Architect/Client, XYLO PAINTS shall furnish satisfactory evidence as to the kind and quality of materials and equipment.

Warranties shall be in accordance with the Contract Documents.

2.7 Responsibility

- Specific design using **MAGIC Xp** is the responsibility of the manufacturer and XYLO PAINTS will extend all the relevant support.
- Quality of maintenance of the building is the responsibility of the building owner.

PART 3 BASIS OF ASSESSMENT AND BRIEF DESCRIPTION OF ASSESSMENT PROCEDURE

3.1 Assessment

3.1.1 The technical assessment was done as per provisions of the Standards listed in Part 5 of this Certificate.

3.1.2 *Inspection of the production unit.*

TAC members and BMTPC Officials inspected the manufacturing unit. The manufacturer process was found to be satisfactory and with minimum training of manpower. The Inspection officers has collected the samples and send to Shriram Institute for Industrial Research, Delhi.

3.2 Tests Performed

The test results from Shriram Institute for Industrial Research are as follows:

S. No.	Test conducted	Test Method	Test Result
1.	Tensile Strength, KGf/cm ² (Perpendicular to Surface)	IS : 2380 (Part 5) – 1977 (Reaffirmed 2003)	2.1
2.	Water Retention (Absorption), % (Immersion in water at 23 ± 1°C for 24 Hrs.)	ASTM D 570-08 (2011)	17
3.	Flexural Strength, MPa	ASTM D 790-17	2.7
4.	Compressive Strength, MPa (At 10% deformation)	ASTM D 695-15	2.1

3.3 Execution of Projects

The manufacturer, as reported, has executed the projects as per the details given below (as reported):

S.No.	Site/Client	Location	Area Done	Remarks
1.	Godrej Avenues	Mangalore	15,000sq.mt	Satisfactory
2.	Suzuki Maruti Ltd.	Bechrajji-Gujrat	2,500sq.mt.	Satisfactory

3.	Uppal Housing	Delhi	50,000sq.mt.	Satisfactory
4.	Ambience	Delhi	15,000sq.mt	Satisfactory
5.	Lemontree Hotels	Gurugram	3,000sq.mtr	Satisfactory

3.4 In Process Checking

1. Water pH value to be less than 8.5
2. Grinding of power must be 8.5 to 9 with HEGMAN GAUGE
3. After complete mixing of chemicals the rubbing cycle of material between must be more than 50 cycles
4. Apply the finished paste on the wall and check for smoothness and water repellent character.

PART 4 STANDARD CONDITIONS

The certificate holder shall satisfy the following conditions:

- 4.1 The certificate holder shall continue to have the product reviewed by BMBA.
- 4.2 The product shall be continued to be manufactured according to and in compliance with the manufacturing specifications and quality assurance measures which applied at the time of issue or revalidation of this certificate. The Scheme of Quality Assurance separately approved shall be followed.
- 4.3 The quality of the product shall be maintained by the certificate holder.
- 4.4 The product user should install, use and maintain the product in accordance with the provisions in this Certificate.
- 4.5 This certificate does not cover uses of the product outside the scope of this appraisal.
- 4.6 The product is appraised against performance provisions contained in the standards listed in Part-V. Provisions of any subsequent revisions or provisions introduced after the date of the certificate do not apply.
- 4.7 Where reference is made in this Certificate to any Act of Parliament of India, Rules and Regulations made there under, statutes, specifications, codes of practice, standards etc. of the Bureau of Indian Standards or any other national standards body and the International Organization for Standardization (ISO), manufacturer's company standards, instruction/manual etc., it shall be construed as reference to such publications in the form in which they were in force on the date of grant of this Certificate (and indicated in Part V to this Certificate)

- 4.8** The certificate holder agrees to inform BMBA of their distributors / licensees whenever appointed by him and agrees to provide to BMBA a six monthly updated list thereof.
- 4.9** The certificate holder agrees to provide to BMBA feedback on the complaints received, the redressal provided, and the time taken to provide redressal on complaint to complaint basis as soon as redressal is provided. BMBA agrees to provide the certificate holder the user feedback received by it, if any.
- 4.10** If at any time during the validity period, PACH is unable to fulfill the conditions in his PAC, he should on his own initiative suspend using the PAC and notify Chairman, TAC the date from which he has suspended its use, the reason for suspension and the period by which he will be able to resume. He shall not resume without the prior permission of BMBA. He shall also inform, simultaneously, his agents, licensees, distributors, institutional, government, public sector buyers, other buyers and all those whom he has informed about his holding the PAC. He shall also inform all those who buy his product(s) during the period of suspension. He shall provide to BMBA at the earliest the list of who have been so informed by him.
- 4.11** In granting this Certificate, BMBA takes no position as to:
- (a) The presence or absence of patent or similar rights relating to the product;
 - (b) The legal right of the Certificate holder to market, install or maintain the product;
 - (c) The nature of individual installations of the product, including methods of workmanship.
- 4.12** BMTPC and the Board of Agreement of BMTPC (BMBA) take no position relating to the holder of the Performance Appraisal Certificate (PACH) and the users of the Performance Appraisal Certificate (PAC) respecting the patent rights / copy rights asserted relating to the product / system / design / method of installation etc. covered by this PAC. Considerations relating to patent / copy rights are beyond the scope of the Performance Appraisal Certification Scheme (PACS) under which this PAC has been issued. PACH and users of this PAC are expressly advised that determination of the Claim / validity of any such patent rights / copy rights and the risk of infringement of such rights are entirely the responsibility of PACH on the one hand and that of the users on the other.
- 4.13** It should be noted that any recommendations relating to the safe use of the product which are contained or referred to in this Certificate are the minimum standards required to be met with when the product is installed, used and maintained. They do not purport in any way to restate or cover all the requirements of related Acts such as the Factory

Act, or of any other statutory or Common Law duties of care, or of any duty of care which exist at the date of this Certificate or in the future, nor is conformity with the provisions of this Certificate to be taken as satisfying the requirements of related Acts.

- 4.14** In granting this Certificate, BMTPC and BMBA does not accept responsibility to any person or body for any loss or damage, including personal injury, arising as a direct or indirect result of the use of this product.
- 4.15** The certificate holder indemnifies BMBA, its officers and officials involved in this assessment against any consequences of actions taken in good faith including contents of this certificate. The responsibility fully rests with the certificate holder and user of the product
- 4.16** The responsibility for conformity to conditions specified in this PAC lies with the manufacturer who is granted this PAC. The Board (BMBA) will only consider requests for modification or withdrawal of the PAC.
- 4.17** The PAC holder shall not use this certificate for legal defense in cases against him or for legal claims he may make from others.

Place: New Delhi

Date of issue:13.1.2020



Chairman TAC & for and on behalf of
Member Secretary, BMBA

Dr. Shailesh Kr. Agrawal
Chairman, TAC
& Member Secretary, BMBA
Building Materials and Technology Promotion Council
Ministry of Housing and Urban Affairs, Govt. of India
Core 5A, 1st Floor, India Habitat Centre
Lodhi Road, New Delhi-110003

PART 5 LIST OF STANDARDS AND CODES USED IN ASSESSMENT

5.1 Standards - These Standards are referred for carrying out a particular test only and do not specify the requirement for the whole product as such.

IS: 2380 (Part 5) – 1977 Tensile Strength
(Reaffirmed 2003)

ASTM D 570-08 (2011) Water Retention (Absorption)

ASTM D 790-17 Flexural Strength

ASTM D 695-15 Compressive Strength

5.2 Company Standards of the PAC holder – The branded design & specifications of the raw materials and finished product are as submitted by the manufacturer. The PAC holder has to make available the company standards to the consumers according to which testing have been done.

CERTIFICATION

In the opinion of Building Materials & Technology Promotion Council's Board of Agreement (BMBA), **Elastomeric Paintable Plaster** bearing the mark manufactured by M/s Xylo Paints, is satisfactory if used as set out above in the text of the Certificate. This **Certificate PAC No. 1054-P/2020** is awarded to **M/s Xylo Paints, Sonipat**.

The period of validity of this Certificate is for a period of one year i.e. from 13/01/2020 to 12/01/2021 as shown on Page 1 of this PAC.

This Certificate consists of a cover page and pages 1 to 17.



Dr. Shailesh Kr. Agrawal
Chairman, TAC
& Member Secretary, BMBA
Building Materials and Technology Promotion Council
Ministry of Housing and Urban Affairs, Govt. of India
Core 5A, 1st Floor, India Habitat Centre
Lodhi Road, New Delhi-110003



On behalf of BMTPC Board of Agreement, Chairman, Technical Assessment Committee (TAC) of BMBA & Member Secretary, BMTPC Board of Agreement (BMBA) under Ministry of Housing and Urban Affairs, Government of India

Place: New Delhi, India

Date:**13.1.2020**.....

PART 6 ABBREVIATIONS

Abbreviations

BMBA	Board of Agreement of BMTPC
BMTPC	Building Materials and Technology Promotion Council
CPWD	Central Public Works Department
ED	Executive Director of BMTPC
IO	Inspecting Officer
MS	Member Secretary of BBA
PAC	Performance Appraisal Certificate
PACH	PAC Holder
PACS	Performance Appraisal Certification Scheme
SQA	Scheme of Quality Assurance
TAC	Technical Assessment Committee (of BMBA)

Performance Appraisal Certification Scheme - A Brief

Building Materials & Technology Promotion Council (BMTPC) was set up by the Government of India as a body under the Ministry of Housing & Urban Poverty Alleviation to serve as an apex body to provide inter-disciplinary platform to promote development and use of innovative building materials and technologies laying special emphasis on sustainable growth, environmental friendliness and protection, use of industrial, agricultural, mining and mineral wastes, cost saving, energy saving etc. without diminishing needs of safety, durability and comfort to the occupants of buildings using newly developed materials and technologies.

During the years, government, public and private sector organizations independently or under the aegis of BMTPC have developed several new materials and technologies. With liberalization of the economy several such materials and technologies are being imported.

However, benefits of such developments have not been realized in full measure as understandably the ultimate users are reluctant to put them to full use for want of information and data to enable them to make informed choice.

In order to help the user in this regard and derive the envisaged social and economic benefits the Ministry of Housing & Urban Poverty Alleviation has instituted a scheme called Performance Appraisal Certification Scheme (PACS) under which a Performance Appraisal Certificate (PAC) is issued covering new materials and technologies. PAC provides after due investigation, tests and assessments, amongst other things information to the user to make informed choice.

To make the PACS transparent and authentic it is administered through a Technical Assessment Committee (TAC) and the BMTPC Board of Agreement (BMBA) in which scientific, technological, academic, professional organizations and industry interests are represented.

The Government of India has vested the authority for the operation of the Scheme with BMTPC through Gazette Notification No. 1-16011/5/99 H-II in the Gazette of India No. 49 dated 4th December, 1999.

Builders and construction agencies in the Government, public and private sectors can help serve the economic, development and environmental causes for which the people and Government stand committed by giving preference to materials and technologies which have earned Performance Appraisal Certificates.

Further information on PACS can be obtained from the website: www.bmtpc.org

(Clause 1.6.3)

PROCESS FLOW CHART OF Xylo Paints

