



GVM TEST HOUSE
AND RESEARCH CENTRE

23-24, Yashodeep Heights,
Plot No. 14/15, Sector 29C,
Rabale-Ghansoli Node,
Navi Mumbai - 400 701, INDIA.
Phone: +91 93244 69890
Email: lab@gvmtesthouse.com
www.gvmtesthouse.com



TC-9061

TESTING | TRAINING | AUDITING

Test Order Ref: GVM/HDPE/05189-1-1/04/2024
ULR: TC906124000000854F

Date: 24.04.2024

Page No. 1 of 1

GRASIM INDUSTRIES LTD.

P.O. Birlagram, Nagda-456331, District Ujjain,
Madhya Pradesh, India

TEST REPORT ON HDPE MEMBRANE

Source of Sample : Sample Submitted by Customer
Number of samples Tested : 01 (One only).
Customer's Reference : PO No.- 4900004258, dt 09.04.2024
Lab Reference Number : 2024/APR/05189-1-1
Condition of sample : Satisfactory
Date of Receipt : 09.04.2024
Sample Identification # : Birla Opus Prime HP12 (1.2 mm HDPE Plain Membrane)
Period of Test : 10.04.2024 to 24.04.2024

TEST RESULTS:

S. N.	Test Conducted	Unit	Test Results	Test Method
1	Thickness (Composite)	mm	1.23	ASTM D 3767:2003
2	Tensile Strength - Longitudinal	N/mm ²	29.42	ASTM D 412: 2016
3	Tensile Strength - Transverse	N/mm ²	28.51	ASTM D 412: 2016
4	Elongation - Longitudinal	%	1009	ASTM D 412: 2016
5	Elongation - Transverse	%	1019	ASTM D 412: 2016
6	Puncture Resistance	N	1171	ASTM E 154: 2008
7	Resistance to Hydrostatic Head up to 7 Bar (71.4 meter)	Visual	No Leakage	ASTM D 5385:2020
8	Dimension Stability @ 80° C For 24 Hrs.	%	0.09	ASTM D 1204: 2014
9	Peel Adhesion with Concrete	N/m	1742	ASTM D 903: 1998
10	Lap Peel Adhesion	N/m	1482	ASTM D 1876: 2008
11	Low Temperature Flexibility (-25 °C)	Visual	No Crack	ASTM D 1970: 2021
12	Water Vapor Transmission Rate	g/m ² .day	0.01	ASTM E 96:2022

As furnished by the customer.

- Note:
1. The results relate only to the items tested.
 2. Report shall not be reproduced except in full, without the written approval of the lab.
 3. Any correction invalidates this report.

For GVM TEST HOUSE AND RESEARCH CENTRE



DINESH BURDE
[Signature]
Authorised Signatory



Regd. Office:

402, Yogesh Apartment CHS, Plot No. 26, Sector 8A, Airoli, Navi Mumbai - 400 708, INDIA.
GSTIN: 27BPBPB4090Q1ZM



ISO 9001:2015 Certified