



BUILDING ENERGY PERFORMANCE LABORATORY

Test Report for Solar Reflectance Index (SRI)



T-2169

Report No: BEPL/RPT/SRI/146

Report Date: 11th February 2015

Report of test carried out by CEPT – CARBSE: BEPL for Solar Reflectance Index of Supplied Material

The test results of the specimen submitted for Solar Reflectance Index on date 10th February 2015 are as under:

1. Customer Information

- 1.1. Name of the Organization : Monarch Industrial Products (I) Pvt. Ltd.
1.2. Contact Person : Mr. N. NandhaKumar
1.3. Address : Post Box No. 3, No. - 25
SIDCO Industrial Estate,
Theni - 625531,
Tamilnadu
1.4. Phone Numbers : +91 4546 – 251020, 09629775805
1.5. Fax Number : +91 4546 - 253060
1.6. Email : qc@monarchindia.net, technical@monarchindia.net

2. Sample Details

- 2.1. Sample Identification Number : SRI/02/15/1147
2.3 Date of Test : 10th February 2015
2.4 Name and any other pertinent
Identification of the material (including physical description): Monarch Make Ozoprotect – Heat Reflective Coatings
2.5 Thickness of the specimen (Reported) : 7.5 mm to 8 mm
2.6 Thickness as tested : Not Applicable
2.7 Condition of Sample when received : Satisfactory
2.8 Method and Environment used for conditioning (if used) : Not Applicable
2.9 No. of Surfaces : Not Applicable
2.10 The type of surfaces : Not Applicable
2.11 Position of panes (if Multiple Glazed) : Not Applicable
2.12 The position of coating(s) designating faces of the panes as 1, 2, 3 starting from the outer surface of pane 1:
Not Applicable
2.13 The face of the panes (if Coated) : Not Applicable
2.14 Instrument used : Spectrophotometer with integrating sphere with reference material
spectralone & FTIR with IR specular reflection set.
2.15 Boundary Conditions (Test Method) : As per ASTM E 1980-11, EN 673:2011, and EN 410:2011.
2.16 Tested By : Mr. Jigar Patel, Lab Technician



BUILDING ENERGY PERFORMANCE LABORATORY

Test Report for Solar Reflectance Index (SRI)



T-2169

Report No: BEPL/RPT/SRI/146

Report Date: 11th February 2015

3. Results of the measurement:

Solar Direct Reflectance

Sample name	Sample ID	Measurement 1	Measurement 2	Measurement 3	Average
Monarch Make Ozoprotect – Heat Reflective Coatings	SRI/02/15/1147	0.8415	0.8418	0.8424	0.8419

Emissivity

Sample name	Sample ID	Measurement 1	Measurement 2	Measurement 3	Average
Monarch make Ozoprotect – Heat Reflective Coatings	SRI/02/15/1147	0.939	0.938	0.939	0.939

Solar Reflectance Index (SRI) under different wind conditions

Sample name	Sample ID	Solar Reflectance Index (SRI)		
		Low Wind($h_c=5 \text{ W m}^{-2} \text{ K}^{-1}$)	Medium Wind($h_c=12 \text{ W m}^{-2} \text{ K}^{-1}$)	High Wind($h_c=30 \text{ W m}^{-2} \text{ K}^{-1}$)
Monarch make Ozoprotect – Heat Reflective Coatings	SRI/02/15/1147	107	107	106

Surface Temperature (T_s) under different wind conditions

Sample name	Sample ID	Surface Temperature ($^{\circ}\text{C}$)		
		Low Wind($h_c=5 \text{ W m}^{-2} \text{ K}^{-1}$)	Medium Wind($h_c=12 \text{ W m}^{-2} \text{ K}^{-1}$)	High Wind($h_c=30 \text{ W m}^{-2} \text{ K}^{-1}$)
Monarch make Ozoprotect – Heat Reflective Coatings	SRI/02/15/1147	45.3	42.1	39.5

4. Certificate of Accuracy:

This is to certify that the test results herein presented are, to the best of my knowledge, true and accurate representations of the samples submitted.

Yashkumar Shukla
Technical Director
Building Energy Performance Laboratory

Disclaimer:

1. The CARBSE / BEPL are not responsible for any kind of alterations in the physical property of the sample and the customer is solely responsible for it and its consequences.
2. Result relates to the sample tested only. Sample will be destroyed after 7 days of issue of the report unless specified by the customer.
3. Any complains about this report should be communicated in writing within 7 days of issue of the report.
4. The test report shall not be reproduced fully or partially or in parts and cannot be used as an evidence in a court of law and shall be used in advert singeing media without written approval of Executive Director, BEPL

BEPL, Centre for Environmental Planning and Technology, K. L. Campus, Navrangpura, Ahmedabad- 380 009.
Phone No: 079-26302470- Extn: 383, 26302740 Fax: +91 79 26302075. Email: ashajoshi@cept.ac.in/bepl@cept.ac.in
Page 2 of 2



CSIR - NAL Estd 1959
ISO 9001: 2008
CERTIFIED
ORGANISATION

वैज्ञानिक तथा औद्योगिक अनुसंधान परिषद्
राष्ट्रीय वांतरिक्ष प्रयोगशालाएं
Council of Scientific & Industrial Research
National Aerospace Laboratories

पी वी स / PB No.1779, एचएएल एयरपोर्ट रोड / HAL Airport Road, बेंगलूर / Bangalore- 560 017, भारत / INDIA
फोन / Phone: (का / Off): +91 - 80 - 2527 3351 - 54, 2508 6000 - 5599, फैक्स / Fax: +91 - 80 - 2526 0862, 2527 0670
वेबसाइट / Website: <http://www.nal.res.in>

Mr. M. Rajaram,
R&D Assistant,
Monarch Industrial Products (I) Pvt Ltd.,
Post Box No.3, No.25,
SIDCO Industrial Estate,
Theni - 625 531.
Tamil Nadu.

13.09.2012

MONARCH	
Recd	13/9/12
File No.	
CC	

DSR/RAD /
33 KSH/IT /
Girish

Dear Sir,

As per your request dated 4th September 2012, we have tested the sample at 6 different places and the average values are given below. These values have been obtained using Devices & Services, USA Instruments. We are not doing any testing as per the ASTM standard you have mentioned in your letter.

Sample	Solar Reflectance (R)	Solar Absorptance (α)	Thermal Emittance at 80°C
OZO Protect TC (Thermo Coat)	0.830	0.186	0.885

We hereby acknowledge receipt of your DD No.083582 dated: 04.09.2012 for Rs.4,412/-
is drawn on State Bank of India.

SRI 104
Vandana

Yours sincerely,

(Dr. Bharathi Bai J Basu)
Head, SED