

বস্তু ও ধাতব কৌশল বিভাগ
বাংলাদেশ প্রকৌশল বিশ্ববিদ্যালয়, ঢাকা-১০০০



Department of Materials and
Metallurgical Engineering

BANGLADESH UNIVERSITY OF
ENGINEERING AND TECHNOLOGY (BUET)
DHAKA-1000, BANGLADESH.

05 July, 2000

Met.No. 1802

Engr. Mirza GQ Kibria
Technical Director
MR Engineering and Construction
5/3, Block-A, Lalmatia
Dhaka-1207.

Sub : Test of ZINGA - An alternative to Hot-Dip Galvanization.

Your No. ZINGA/BRTC/Test-01/2000, dt. 21.5.200

Ref:

Our No. BRTC-5022/99-00/Met., dt. 23.5.2000

Dear Sir,

The above-referred materials were duly analysed as requested and the result is furnished below for your appraisal.

CORROSION TEST REPORT

Test Method: ASTM Designation : G31-72
(Reapproved in 1979)
(Standard Recommended Practice for "Laboratory Immersion Corrosion Testing of Metals").

Test Conditions :

Solution :	Distilled water	5% w/w NaCl
Volume :	1000 ml	1000 ml
Temperature:	60±2°C	60±2°C
Exposure Time:	250 hours	250 hours

Description of Samples:

i) Coin shape (dia ~ 30 mm, thickness ~3 mm, hole dia ~ 5mm). Mild steel specimen galvanized by hot dipping. Film thickness 70 microns (as mentioned by supplier)

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ii) Coin shape (dimensions same as above mild steel specimen with ZINGA Coating).
Film thickness ~ 80 microns (as mentioned by supplier).

Both the samples were supplied by MR Engineering and Construction.

Results:

Corrosion rate is expressed both by mils penetration per year (mpy) and millimeter penetration per year (mm/yr). (1 mpy = 0.0254 mm/yr)

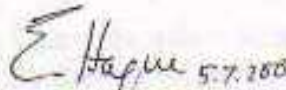
Sample	Solution	Corrosion rate
Hot Dip Galvanized Coin	Distilled Water	1.045 mpy 26.54×10^{-3} mm/yr
	5% NaCl	6.51 mpy 165.35×10^{-3} mm/yr

Sample	Solution	Corrosion rate
ZINGA coated coin	Distilled Water	0.32 mpy 8.13×10^{-3} mm/yr
	5% NaCl	1.73 mpy 43.94×10^{-3} mm/yr

Please Note: The sample tested is supplied by the party and the result is correspondant to the sample tested only. The department of Materials and Metallurgical Engineering of BUET takes no responsibility regarding the misidentification, if any, of the sample.

Thanking you.

Yours sincerely,


Dr. Ehsanul Haque 5.7.2000