



SUMMARY REPORT

CORROSION PERFORMANCE TESTING

LPI RESLO

Description:

The linear polarisation resistance (LPR) method was used to assess the corrosion performance of LPI’s earth enhancing compound called “RESLO”. LPR testing was carried out over a suitable period of time on copper-coated steel and stainless steel electrodes embedded in RESLO. All LPR testing and analysis was carried out in accordance with IEC 62561-7, to obtain polarisation resistance values, R_p , as a function of time. The most common electrode type, copper-coated steel, was tested under both “non-aggressive” and “aggressive” corrosion conditions.

IEC 62561-7 Pass Criteria:

Electrode Material	Required R_p (Ωm^2)	
	Non-aggressive Test	Aggressive Test
Copper, Copper-plated	> 4	> 8
Galvanised steel	> 3	> 7.6

LPR Test Results:

Copper-coated steel electrode	Sample	R_p (Ωm^2)					
		Day 0 04/09/2015	Day 1 05/09/2015	Day 2 06/09/2015	Day 3 07/09/2015	Day 7 11/09/2015	Day 14 18/09/2015
Aggressive	1	18.8	17.7	18.3	18.3	20.6	18.4
	2	9.85	14.3	16.8	17.5	20.3	20.5
	3	27.9	21.6	20.3	3.03	8.42	13.5
Non-aggressive	1	385.3	161.9	358.5	392.7	347.8	159.4
	2	130.8	161.5	188.3	168.5	133.4	136.4
	3	138.7	153.8	160.5	161.2	154.9	97.2
Stainless steel electrode	Sample	R_p (Ωm^2)					
		Day 0 15/11/2015	Day 3 18/11/2015	Day 11 26/11/2015	Day 13 28/11/2015	Day 17 02/12/2015	Day 23 08/12/2015
Non-aggressive	1	14.35	19.65	54.44	73.69	78.24	68.68
	2	12.85	15.06	95.71	95.12	90.12	83.50

Conclusions:

The corrosion performance of the earth enhancing compound “RESLO” meets the requirements of LPR test methodology in IEC 62561-7.

Signed: 

Date: 25 July 2016