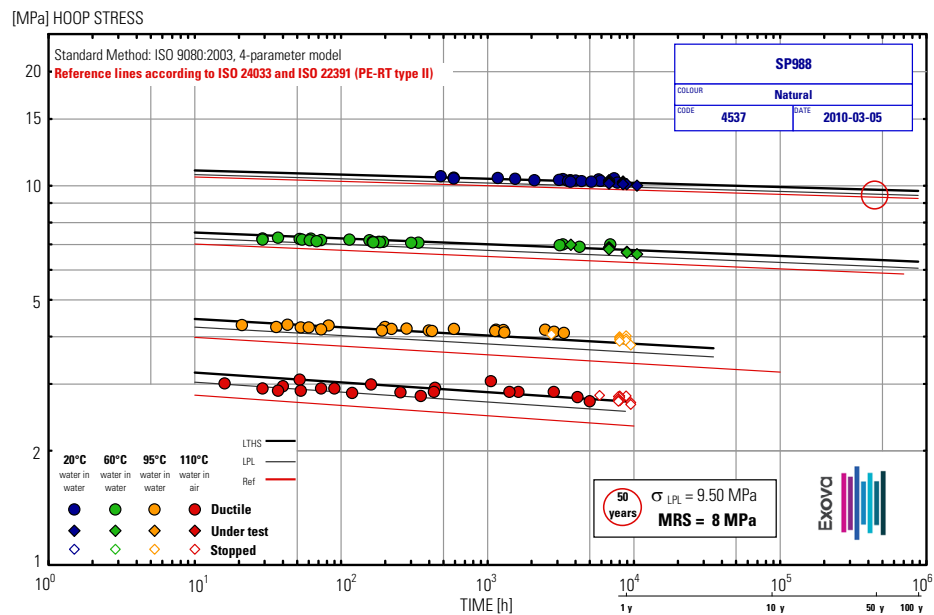


CLIENT: LG Chem, Ltd.

REGRESSION ANALYSIS ACCORDING TO ISO 9080 OF THE PE-RT PIPE GRADE SP988 Natural



INTRODUCTION

Exova offers accredited testing and evaluation according to ISO 9080, i.e. hydrostatic pressure testing followed by evaluation of the long-term hydrostatic strength and MRS-classification according to ISO 12162.

OBJECTIVE

The aim was to evaluate the PE-RT pipe grade SP988 Natural from LG Chem according to:

- ISO 9080 in order to obtain a MRS-classification according to ISO 12162
- PE-RT Type II reference lines of ISO 24033:2009 and ISO 22391:2009.

RESULTS OBTAINED

The evaluation was performed in accordance with ISO 9080:2003. The PE-RT pipe grade SP988 Natural shows conformity with the requirements above. More information can be found in the Exova Report P-10/40.

EXTRAPOLATED STRENGTH VALUES

Temp [°C]	Time [Yrs]	σ_{LPL} [MPa]	σ_{LTHS} [MPa]
20	50.0	9.50	9.76
20	100	9.43	9.69
60	100	6.06	6.31
70	50.0	5.30	5.54
95	4.00	3.54	3.73
110	1.03	2.54	2.70

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CLASSIFICATION

MRS = 8 MPa

PE-RT Type II