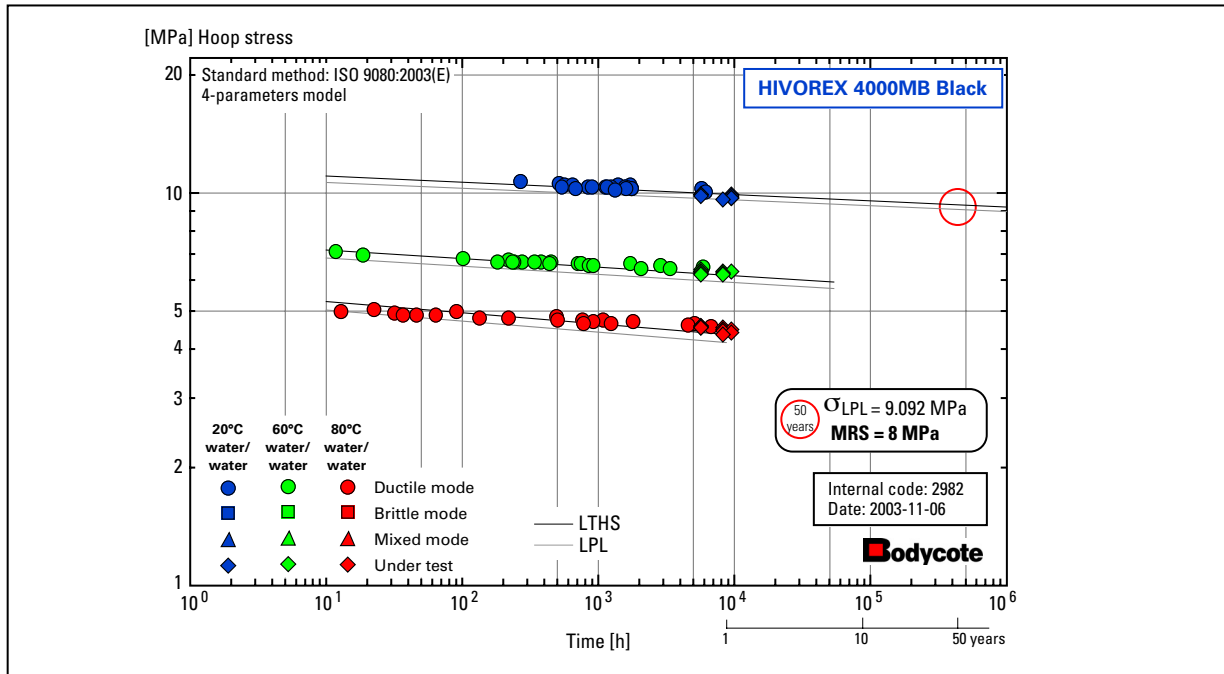


Client: Honam Petrochemical Corporation
**Regression analysis according to ISO 9080 of the
 PE pipe grade HIVOREX 4000MB Black**



Introduction

Bodycote Polymer 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.

Task

The aim was to use the Standard Extrapolation Method (SEM) according to ISO 9080:2003(E) in order to obtain a classification of the PE pipe grade HIVOREX 4000MB Black from Honam Petrochemical Corporation.

The work covers hydrostatic pressure testing at 20, 60 and 80°C and a SEM-evaluation according to ISO 9080:2003(E).

Results obtained

The evaluation was performed in accordance with ISO 9080:2003(E). The 4-parameter model gave the best fit.

Number of observations

20°C	60°C	80°C
30	30	30

Extrapolated strength values

Temp °C	Time yrs	σ_{LPL} MPa	σ_{LTHS} MPa
20	50.0	9.092	9.361
20	100	8.990	9.263
60	6.01	5.722	5.954
80	1.00	4.211	4.412

Classification: MRS = 8 MPa

Please contact us for further information!