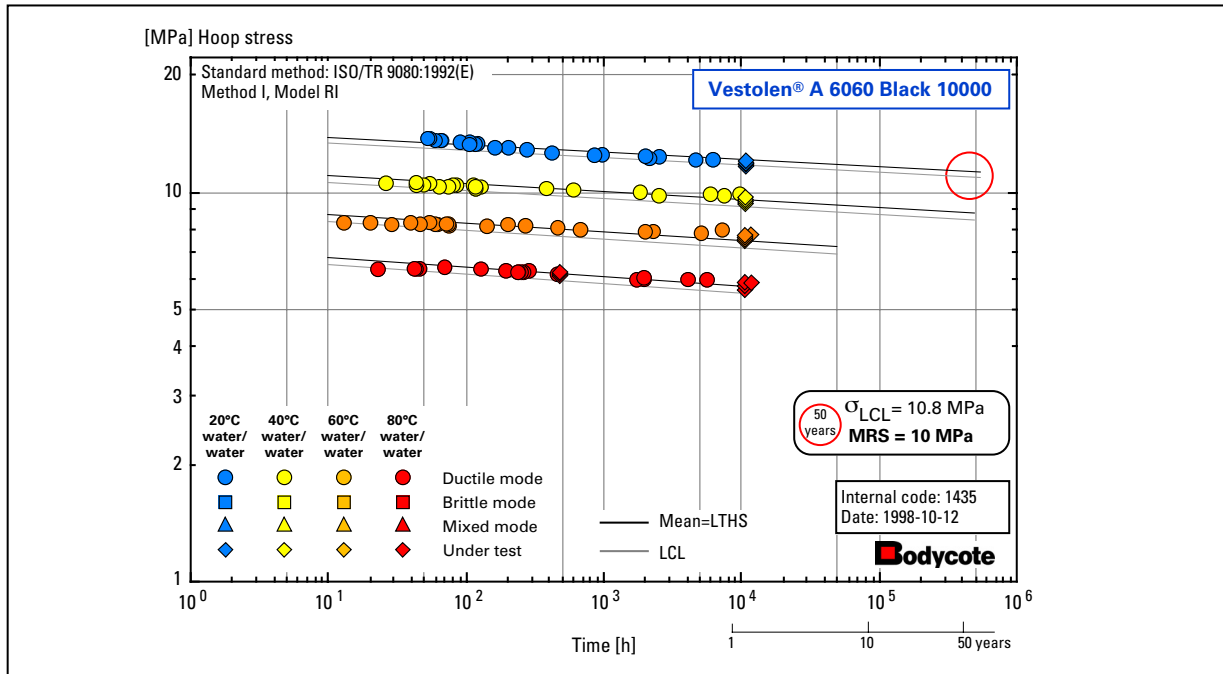


Client: Sabic EuroPetrochemical

Regression analysis according to ISO/TR 9080 of the PE pipe grade VESTOLEN® A 6060 Black 10000



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/TR 9080:1992(E) in order to obtain a classification of the PE pipe grade Vestolen® A 6060 Black 10000 from Sabic EuroPetrochemicals.

The work covers hydrostatic pressure testing at 20, 40, 60 and 80°C and a SEM-evaluation according to ISO/TR 9080:1992(E).

Results obtained

The evaluation was performed in accordance with ISO/TR 9080:1992(E). Method I and Model RI gave the lowest lack of fit.

Number of observations

20°C	40°C	60°C	80°C
25	25	25	25

Extrapolated strength values

Temp °C	Time yrs	σ_{LCL} MPa	σ_{LTHS} MPa
20	50.0	10.8	11.2
20	61.9	10.8	11.2
40	56.0	8.42	8.78
60	5.60	6.86	7.16
80	1.12	5.46	5.72

Classification: MRS = 10 MPa

Please contact us for further information!