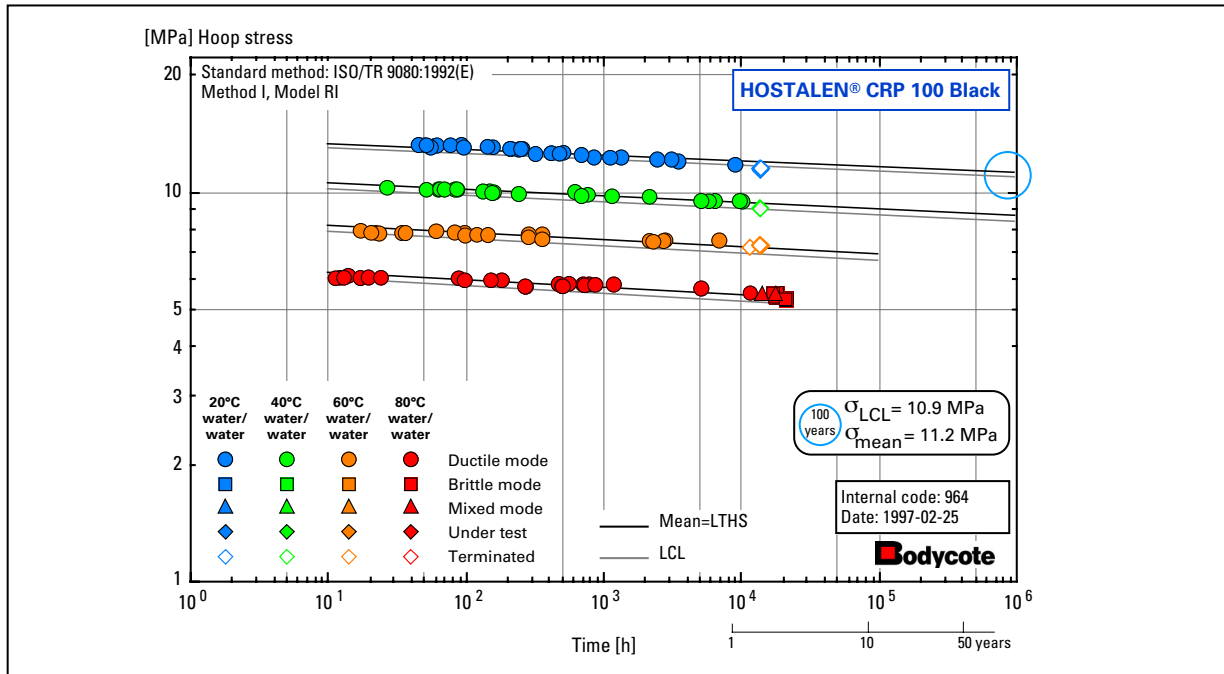


Client: Basell Polyolefins

Regression analysis according to ISO/TR 9080 of the PE pipe grade HOSTALEN® CRP 100 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/TR 9080:1992(E) in order to obtain a classification of the PE pipe grade HOSTALEN® CRP 100 Black from Basell Polyolefins.

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
32	25	30	30

Extrapolated strength values

Temp °C	Time yrs	σ_{LCL} MPa	σ_{LTHS} MPa
20	109	10.9	11.2
40	109	8.41	8.69
60	10.9	6.68	6.92
80	2.19	5.17	5.37

Classification: MRS = 10 MPa

Please contact us for further information!