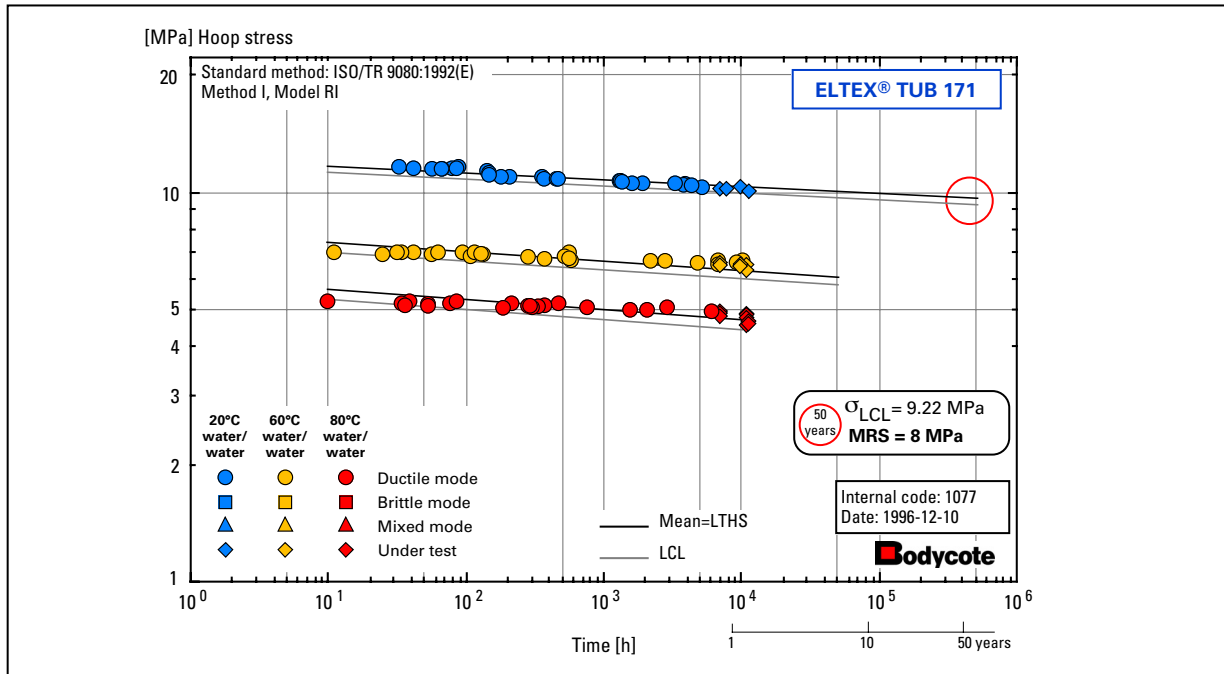


Client: INEOS Polyolefins

Regression analysis according to ISO/TR 9080 of the PE pipe grade ELTEX® TUB 171



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 ELTEX® TUB 171 from INEOS Polyolefins.

The work covers hydrostatic pressure testing at 20, 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	60°C	80°C
31	31	27

Extrapolated strength values

Temp °C	Time yrs	σ_{LCL} MPa	σ_{LTHS} MPa
20	59.3	9.19	9.63
40	57.7	7.19	7.58
60	5.77	5.76	6.09
80	1.15	4.40	4.69

Classification: MRS = 8 MPa

Please contact us for further information!