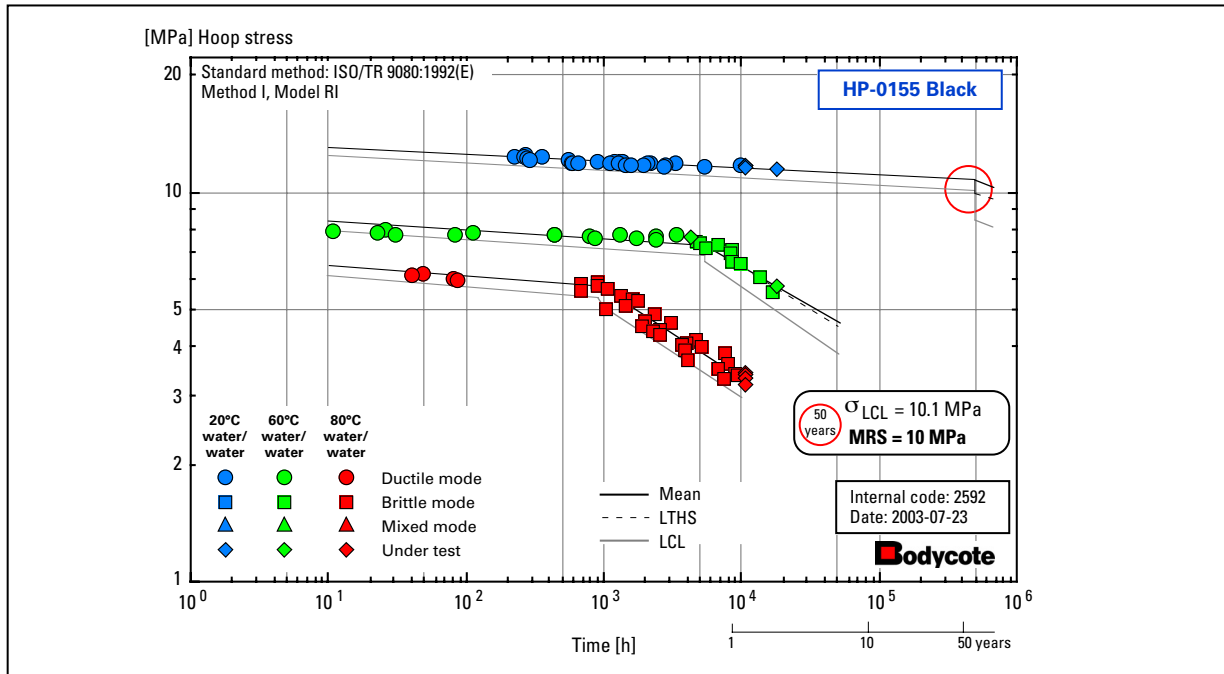


Client: Braskem S.A.

Regression analysis according to ISO/TR 9080 of the PE pipe grade HP-0155 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 HP-0155 Black from Braskem S.A.

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	27	36

Extrapolated strength values

Temp °C	Time yrs	σ_{LCL} MPa	σ_{LTHS} MPa
20	50.0	10.1	10.7
20	76.9	8.10	9.53
60	5.90	3.81	4.48
80	1.18	2.93	3.28

Classification: MRS = 10 MPa

Please contact us for further information!