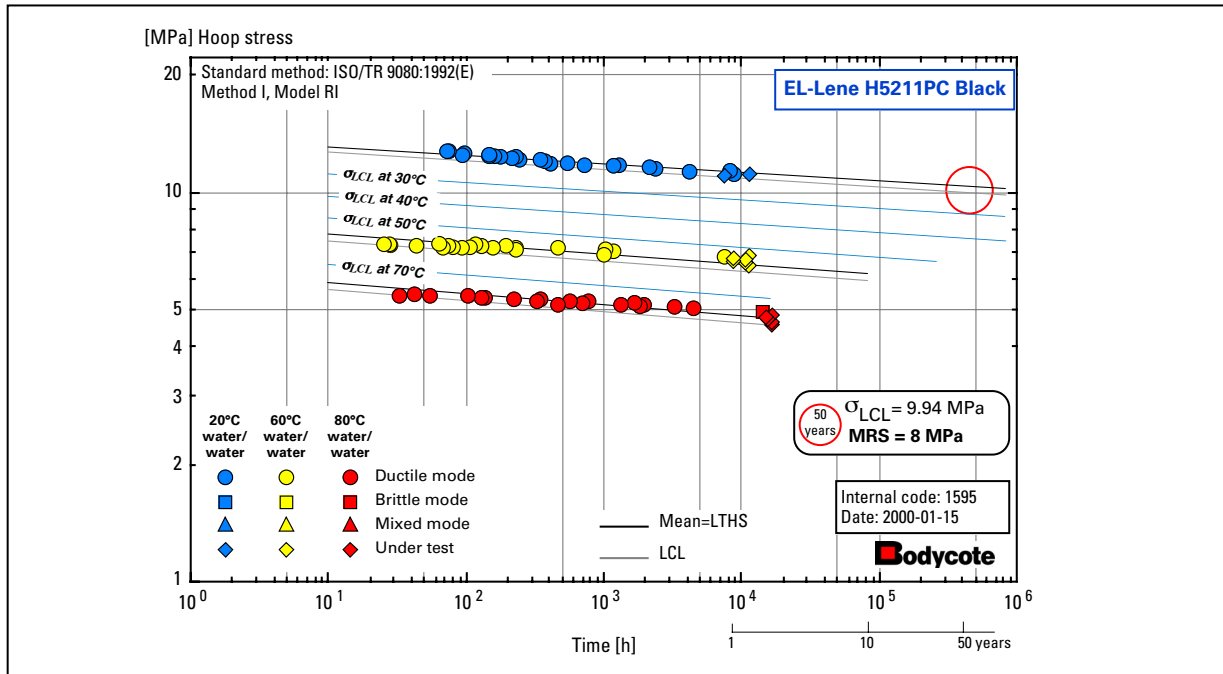


Client: Thai Polyethylene Co., Ltd.

Classification according to ISO 12162 and AS/NZS 4131 of the PE pipe grade EL-Lene H5211PC



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 classifications according to ISO 12162 and AS/NZS 4131:1997 for the PE pipe grade EL-Lene H5211PC Black from Thai Polyethylene Co., Ltd.

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.

Extrapolated strength values for AS/NZS 4131:1997 classification

Temp °C	Time yrs	σ_{LCL} MPa	required σ_{LCL} MPa
20	50	9.94	8.00
25	50	9.29	7.80
30	50	8.67	7.50
35	50	8.09	7.00
40	50	7.53	6.50
45	50	7.01	6.00
50	28	6.62	5.50
60	9	5.88	5.00
65	5	5.54	4.50
70	1	5.37	4.20

Classification (ISO 12162): MRS = 8 MPa

Classification (AS/NZS 4131): PE 80B

Please contact us for further information!