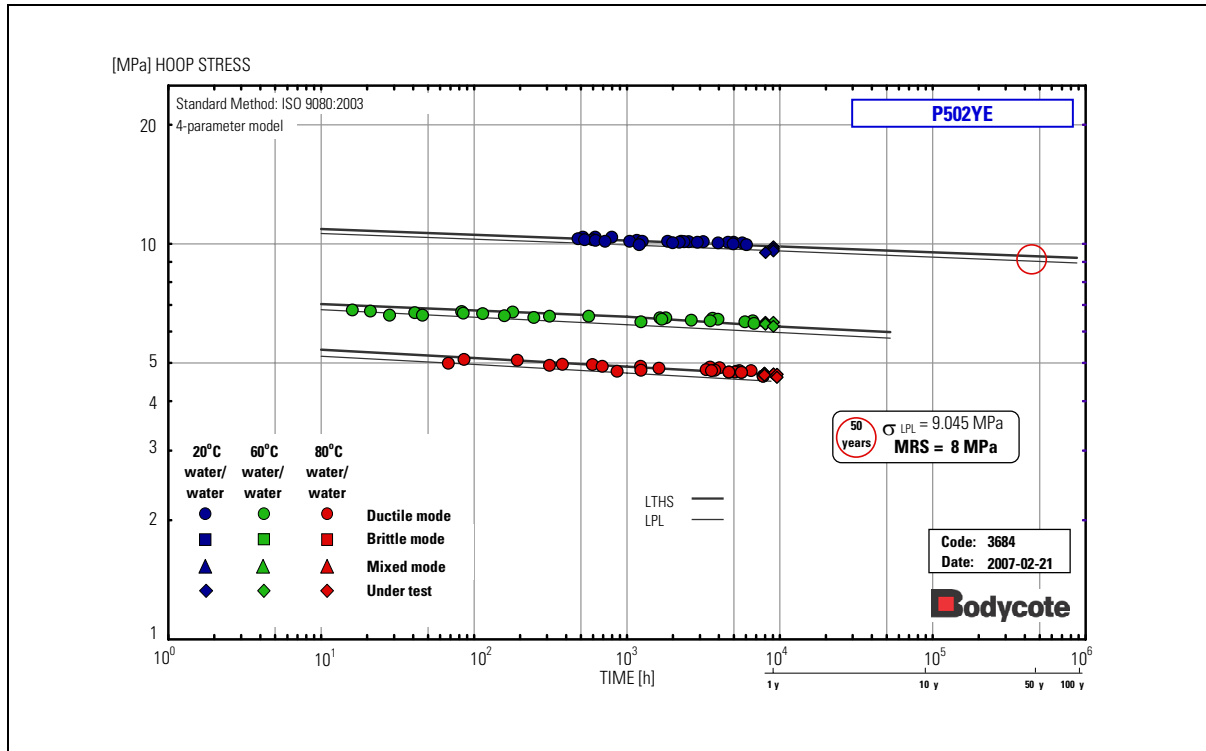


Client: Korea Petrochemical Ind. Co., Ltd
**Regression analysis according to ISO 9080 of the
 PE pipe grade P502YE**



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 9080:2003 in order to obtain a classification of the PE pipe grade P502YE from Korea Petrochemical Ind. Co., Ltd.

The work covers hydrostatic pressure testing at 20, 60 and 80°C and a SEM-evaluation according to ISO 9080:2003.

Results obtained

The evaluation was performed in accordance with ISO 9080:2003. The 4-parameter model gave the best fit. Detailed information can be found in Bodycote Report P-07/21.

Number of observations

20°C	60°C	80°C
30	30	32

Extrapolated strength values

Temp °C	Time Yrs	σ_{LPL} MPa	σ_{LTHS} MPa
20	50.0	9.045	9.319
20	100	8.946	9.224
60	6.01	5.775	5.987
80	1.00	4.497	4.671

Classification: MRS = 8 MPa

PLEASE CONTACT US FOR FURTHER INFORMATION!