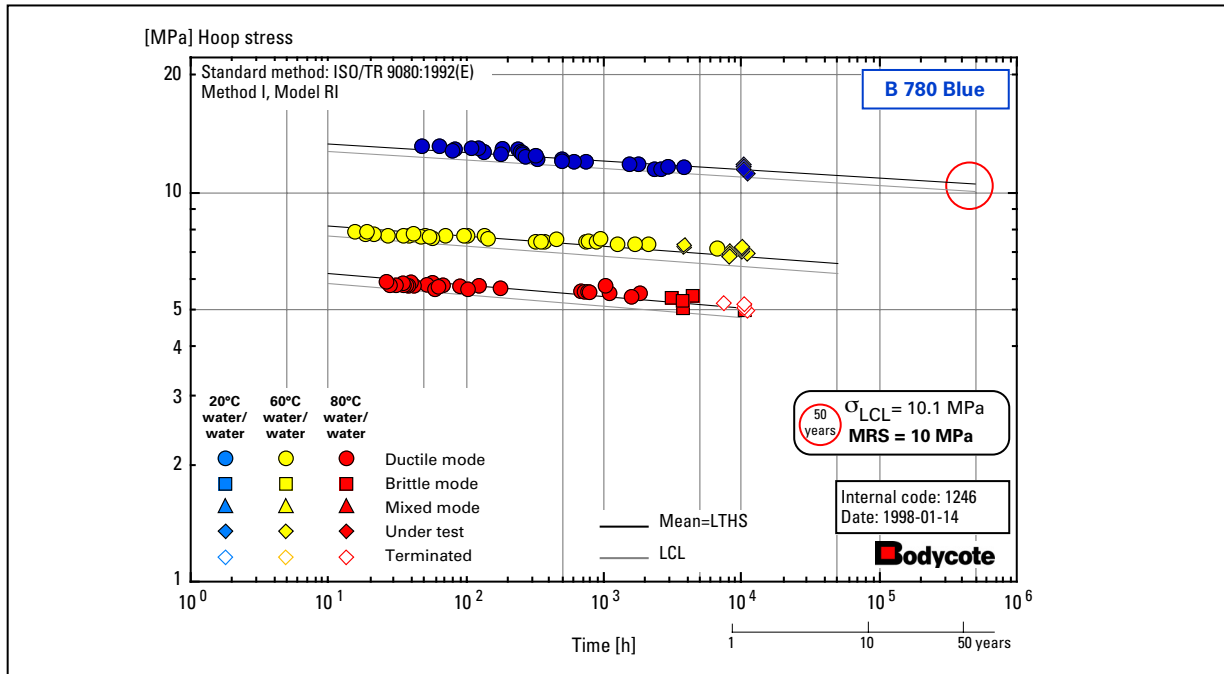


Client: Asahi Chemical Industry Co., Ltd.

# Regression analysis according to ISO/TR 9080 of the PE pipe grade B 780 Blue



## 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 B 780 Blue from Asahi Chemical Industry 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.

### Number of observations

20°C	60°C	80°C
30	39	36

### Extrapolated strength values

Temp °C	Time yrs	$\sigma_{LCL}$ MPa	$\sigma_{LTHS}$ MPa
20	50.0	10.1	10.6
20	57.9	10.1	10.6
60	5.58	6.18	6.55
80	1.11	4.73	5.04

**Classification: MRS = 10 MPa**

Please contact us for further information!