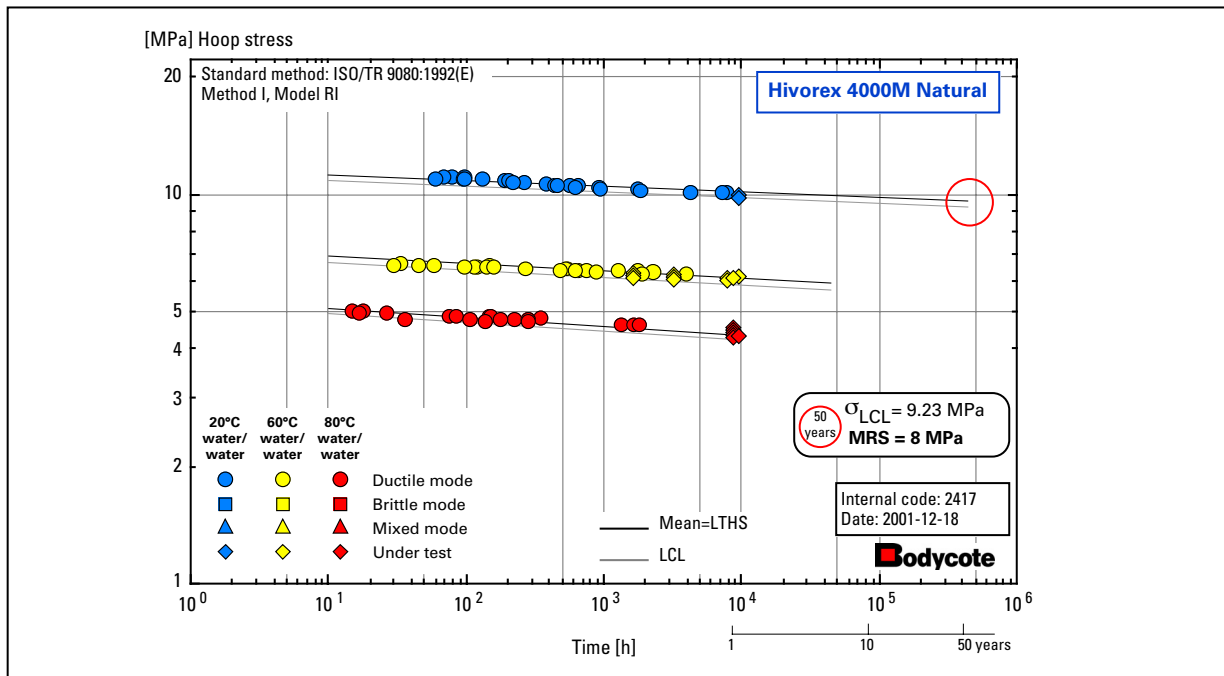


Client: Honam Petrochemical Corporation  
**Regression analysis according to ISO/TR 9080 of  
the PE pipe grade Hivorex 4000M Natural**



### 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 Hivorex 4000M Natural from Honam Petrochemical Corporation.

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
26	34	26

#### Extrapolated strength values

Temp °C	Time yrs	$\sigma_{LCL}$ MPa	$\sigma_{LTHS}$ MPa
20	50.0	9.23	9.45
20	50.6	9.22	9.45
60	5.06	5.64	5.81
80	1.01	4.22	4.37

**Classification: MRS = 8 MPa**

Please contact us for further information!