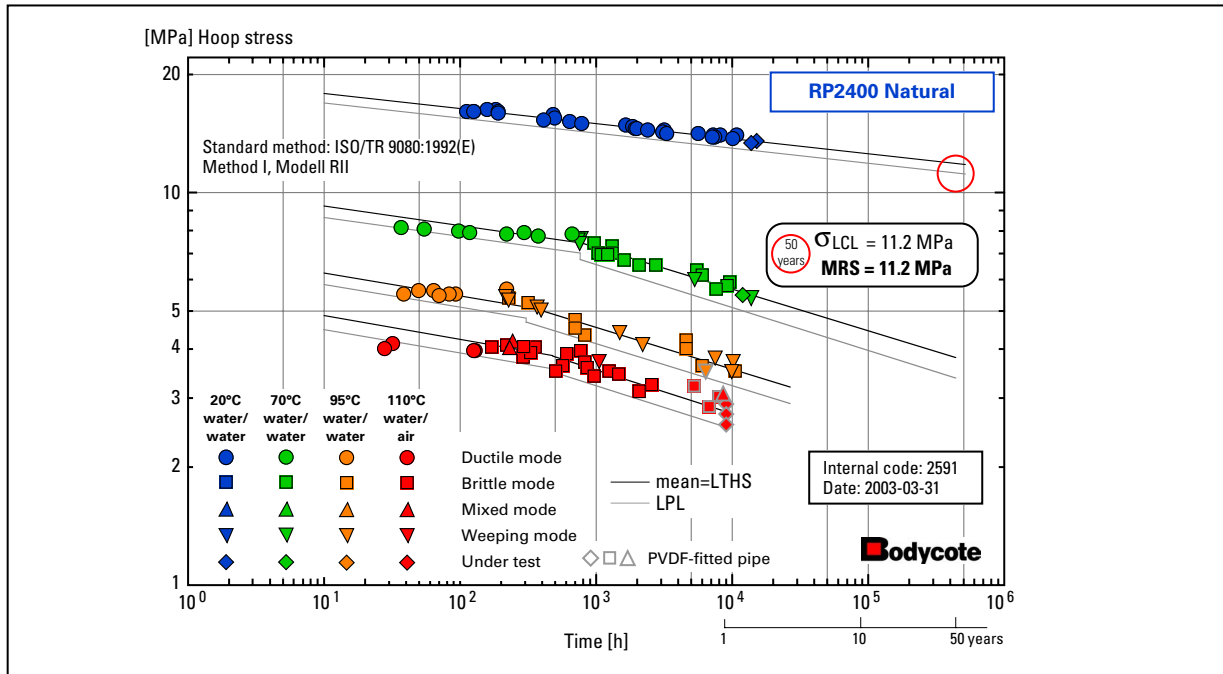


Client: Korea Petrochemical Ind. Co., Ltd.

# Regression analysis according to ISO/TR 9080 of the PP-R pipe grade RP2400 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 PP-R pipe grade RP2400 Natural from Korea Petrochemical Ind. Co., Ltd.

The work covers hydrostatic pressure testing at 20, 70, 95 and 110°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 RII gave the lowest lack of fit.

### Number of observations

20°C	70°C	95°C	110°C
29	28	26	31

### Extrapolated strength values

Temp °C	Time yrs	$\sigma_{LCL}$ MPa	$\sigma_{LTHS}$ MPa
20	50.0	11.2	11.8
20	59.8	11.1	11.8
70	50.9	3.30	3.77
95	3.05	2.89	3.19
110	1.01	2.53	2.78

**Classification: MRS = 11.2 MPa**

Please contact us for further information!