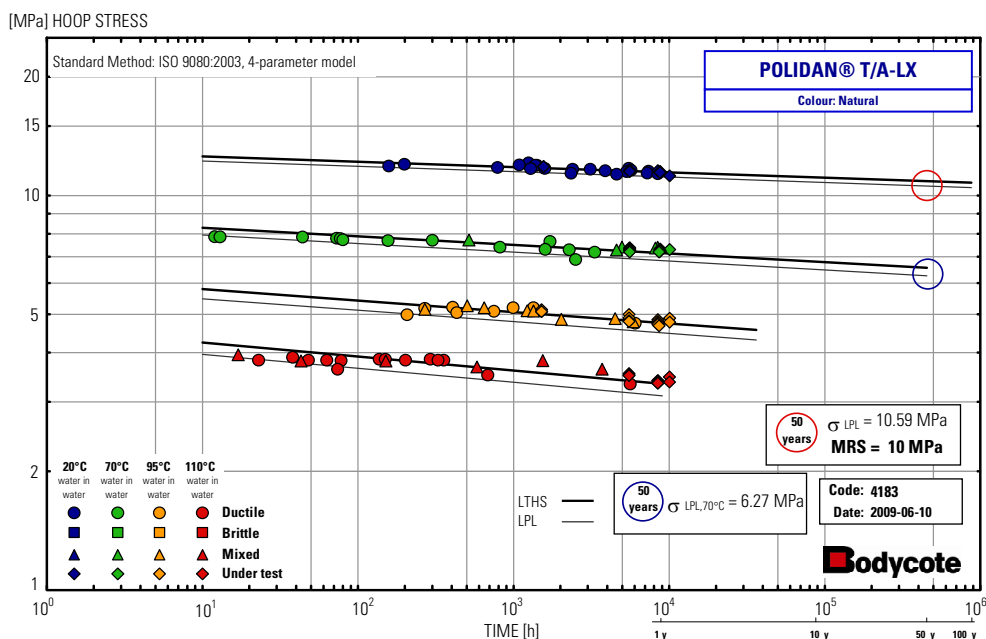


CLIENT: Solvay Padanaplast S.p.A

# REGRESSION ANALYSIS ACCORDING TO ISO 9080 OF THE PE-X PIPE GRADE POLIDAN® T/A-LX



## 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.

The evaluation was performed in accordance with ISO 9080:2003. The 4-parameter model gave the best fit. More information can be found in Bodycote Report P-09/65.

## TASK

The aim was to evaluate the compound according to ISO 9080 in order to obtain a MRS-classification according to ISO 12162 of the PE-X pipe grade POLIDAN® T/A-LX from Solvay Padanaplast S.p.A.

## RESULTS OBTAINED

10 000 hours of exposure time at each testing temperature was fulfilled according to DIN 16892 (DIN 16887). The PE-X pipe grade POLIDAN® T/A-LX also fulfilled the Class 1, 2, 4 and 5 performance requirements according to DIN 16892 and ISO 15875.

### EXTRAPOLATED STRENGTH VALUES

Temp [°C]	Time [Yrs]	$\sigma_{LPL}$ [MPa]	$\sigma_{LTHS}$ [MPa]
20	50	10.585	10.886
20	100	10.482	10.786
70	50	6.271	6.567
70	51.7	6.266	6.563
95	4.14	4.308	4.567
110	1.03	3.108	3.335

## CLASSIFICATION

**MRS = 10 MPa**

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