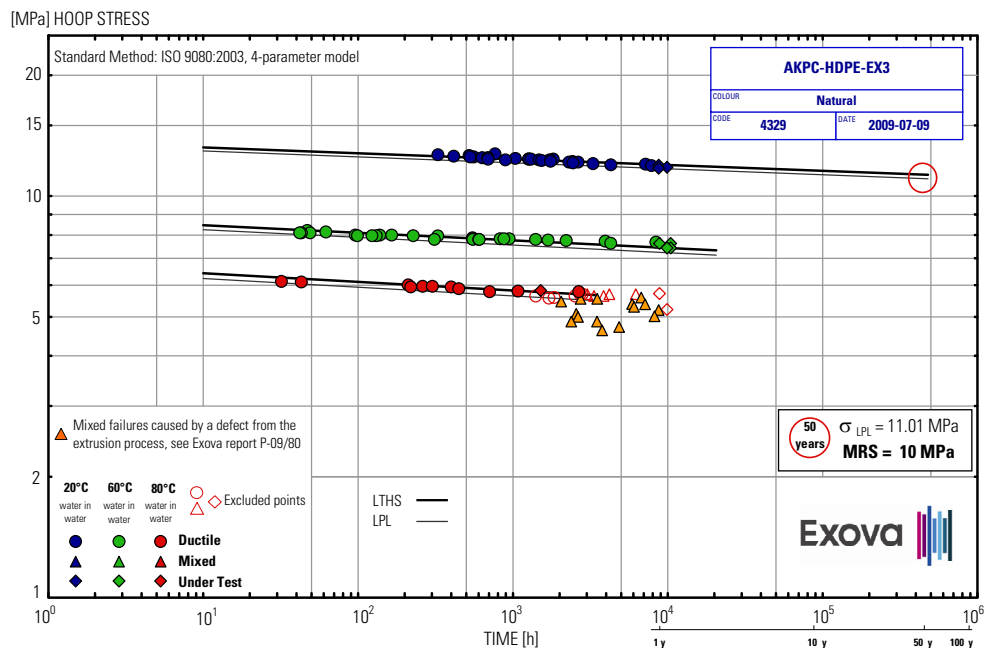


CLIENT: Amir Kabir Petrochemical Company

REGRESSION ANALYSIS ACCORDING TO ISO 9080 OF PE PIPE GRADE AKPC-HDPE-EX3 NATURAL



INTRODUCTION

Exova 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 evaluate the compound according to ISO 9080 in order to obtain a MRS-classification according to ISO 12162 of the PE pipe grade AKPC-HDPE-EX3 Natural from Amir Kabir Petrochemical Company.

RESULTS OBTAINED

The evaluation was performed in accordance with ISO 9080:2003. More information can be found in Exova Report P-09/81.

EXTRAPOLATED STRENGTH VALUES

| Temp [°C] | Time [Yrs] | σ_{LPL} [MPa] | σ_{LTHS} [MPa] |
|--------------|---------------|-------------------------|--------------------------|
| 20 | 50 | 11.011 | 11.332 |
| 60 | 2.34 | 7.085 | 7.331 |
| 80 | 0.39 | 5.452 | 5.665 |

CLASSIFICATION

MRS = 10 MPa



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