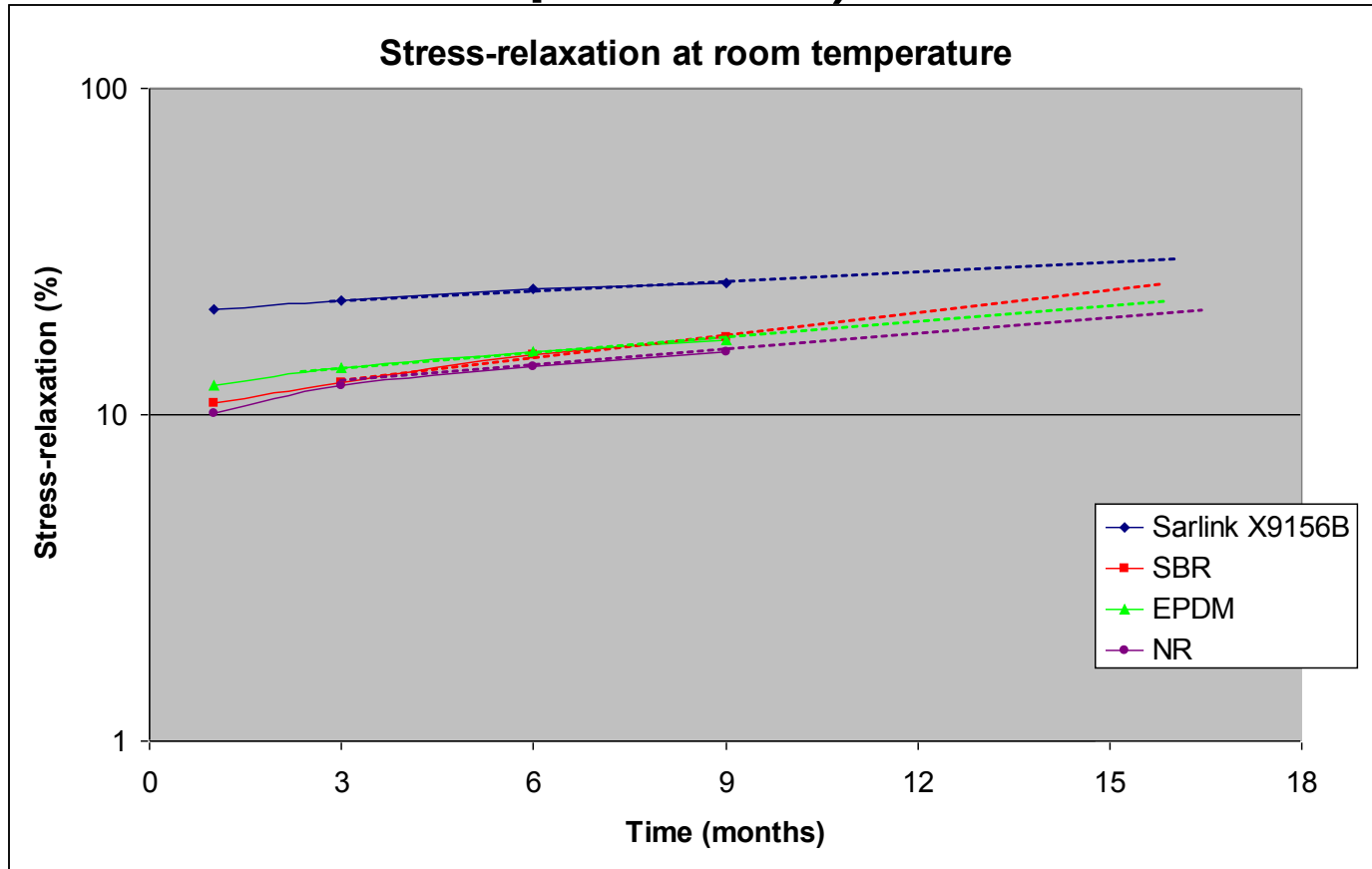


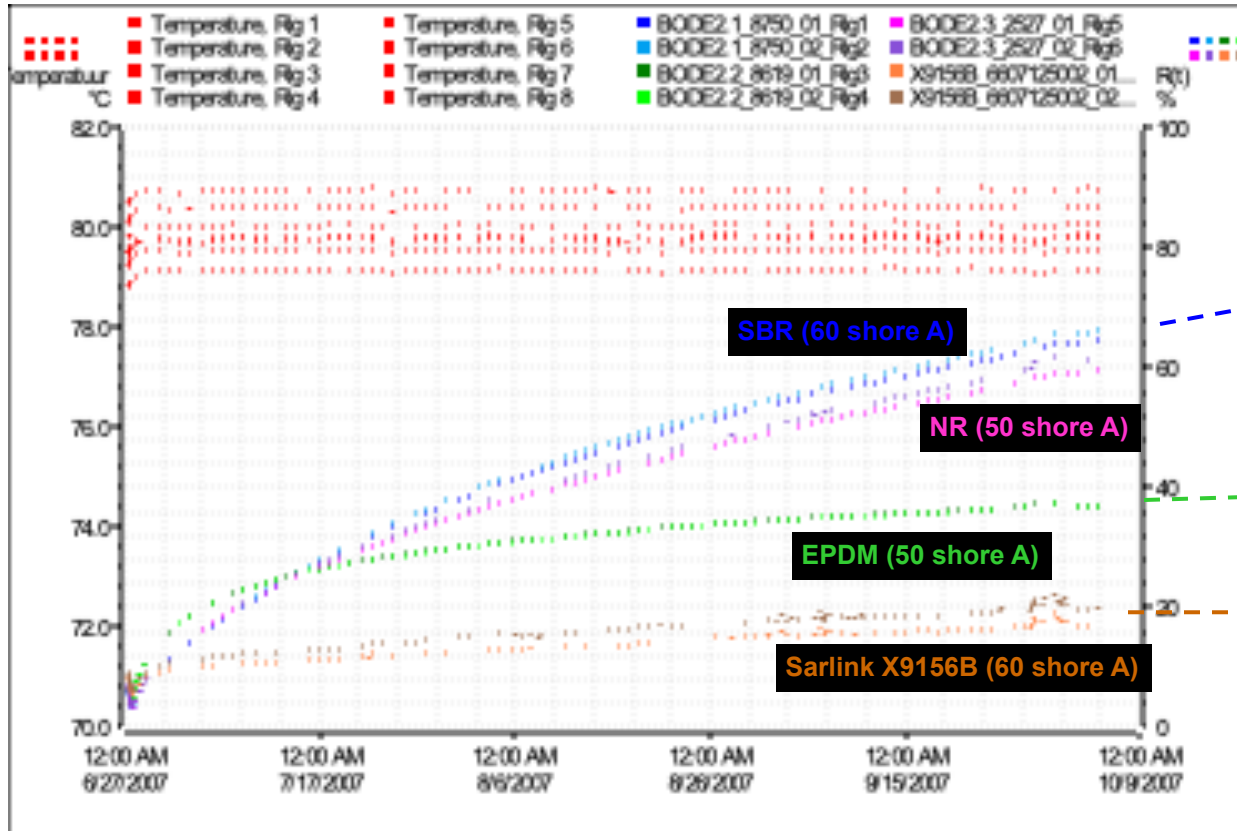
Stress-relaxation for TPV Materials

Long term stress-relaxation (to be updated)



Stress-relaxation data at 80°C

Measured at DADC



	F(0) at 80°C N	F (2400h) at 80°C N	S/R (2400h) at 80°C %
SBR	128.8 126.2	45.3 42.3	64.9 66.5
EPDM	103.3 107.3	64.9 67.4	37.1 37.2
NR	97.0 101.2	38.8 38.3	60.0 62.2
Sarlink X9156B	76.7 64.8	63.6 51.9	17.2 19.9

Stress relaxation

What happens in the material:

**physical relaxation, thermal and oxidative degradation,
continued cross linking**

physical stress relaxation at low temperatures

$$\log P(t)/P(0) = -C \cdot \log(t)$$

chemical stress relaxation at higher temperatures

$$P(t)/P(0) = \text{SUM} \{A_i \cdot e^{-K(i).t}\}$$

*TPV: mainly physical stress relaxation over broad
temperature range*