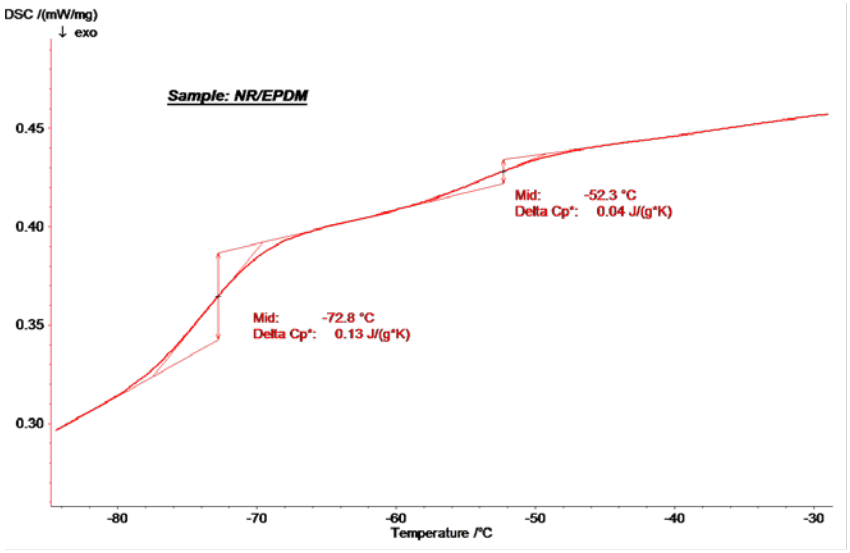
APPLICATION**SHEET**

Polymers
DSC 3500 *Sirius*

Natural Rubber / Ethylene Propylene Diene Rubber

Introduction

Elastomers like natural rubber (NR) / ethylene propylene diene rubber (EPDM) are materials with the mechanical property that can undergo elastic deformation under stress than most materials and still return to its previous size without permanent deformation. Natural rubber (NR) is a polmyer of isoprene units; EPDM is a copolymer of ethylene, propylene and diene units.



Test Conditions

Temperature range:	-100°C ... 100°C
Heating rate:	20 K/min
Atmosphere:	Nitrogen (20 ml/min)
Sample mass:	14.34 mg
Crucible:	Al, pierced lid

Test Results

Two glass transitions were detected. The first one at -72.8°C (midpoint) with a change in specific heat of 0.13 J/(g·K) can be attributed to NR. The second one at -52,3°C with a change in specific heat of 0,04 J/(gK) is most propably related to the glass transition of EPDM.

NGB · Application Sheet 025 · E · 0621 · Technical specifications are subject to change.

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