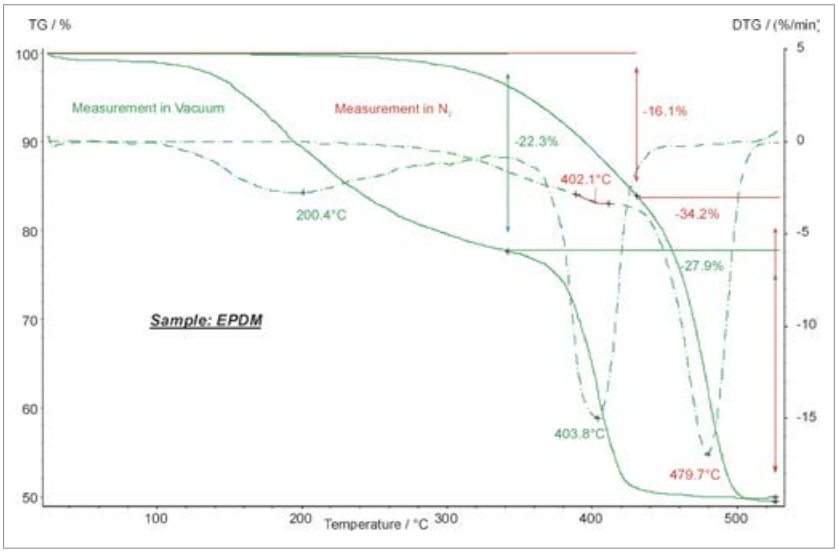
APPLICATION**SHEET**

POLYMERS – AUTOMOTIVE

ETHYLENE PROPYLENE DIENE RUBBER (EPDM)

EPDM is a copolymer of ethylene, propylene and diene units. It is characterized by a wide range of applications. EPDM rubber is used in automotive weather-stripping and seals, glass-run channel, radiator, garden and appliance hose, tubing, belts, electrical insulation, rubber mechanical goods, plastic impact modification, thermoplastic vulcanizates, motor oil additive applications, etc.



Instrument

TG 209 ***F1*** *Iris*®

Test Conditions

Temperature range	25 ... 670°C
Heating rate	20 K/min
Atmosphere	Nitrogen or vacuum
Sample mass	4.76 mg (meas. in vacuum)
	4.79 mg (meas. in nitrogen)
Crucible	Al_2O_3

Results

Thermogravimetric tests under vacuum can help to accurately quantify the plasticizer content. Two steps were detected in the mass-loss curve between room temperature and 670°C in the tests under vacuum and nitrogen. The first one is due to plasticizers. The second step is typical for the degradation of EPDM. The measurement under vacuum allows a better separation of both steps because of the earlier evaporation of plasticizers. Thus, the plasticizer content (22.3%) can be determined very accurately.

NGB · AS · 064-2006 · EN · 07/13 · Technical specifications are subject to change.

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