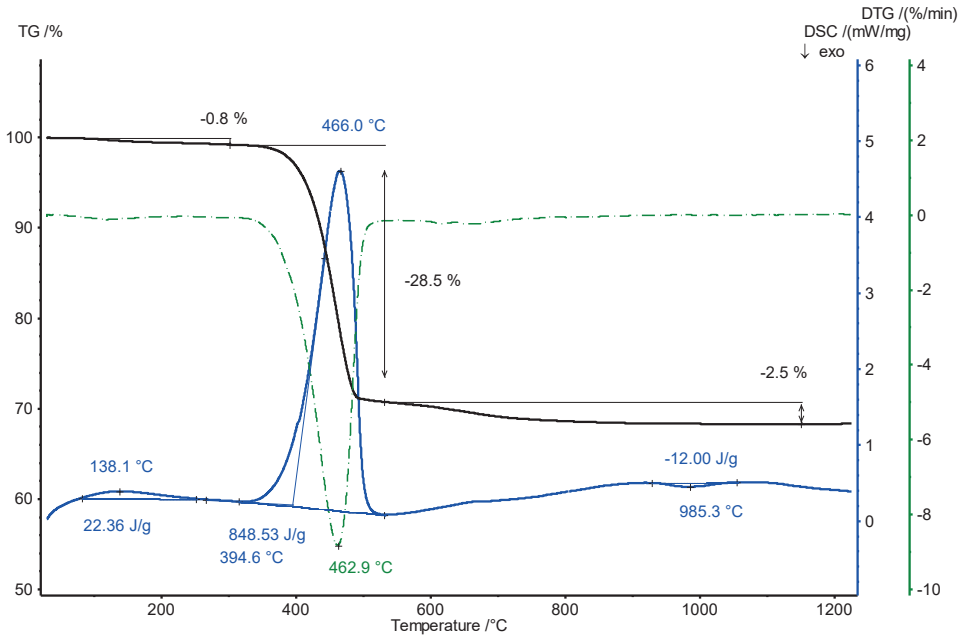
APPLICATION**SHEET**

Inorganics · Chemical Industry
STA 449 ***F1*** *Jupiter®*

$Mg(OH)_2$

Introduction

Magnesium hydroxide is used as a flame retardant material in thermoplastics, PVC and rubbers. It is also employed as an absorbent for SO_2 in fuel oils, flocculants for waste water or cleansing agents. By firing $Mg(OH)_2$, water is evolved and MgO remains which is a high-temperature refractory material.



Test Conditions

Temperature range:	RT ... 1250°C
Heating rate:	10 K/min
Atmosphere:	Air at 60 ml/min
Sample mass:	44.5 mg
Crucible:	Pt-Rh
Sensor:	TGA-DSC type S

Test Results

The measured sample is no pure $Mg(OH)_2$ which is indicated by the small TGA step of 0.8% prior to the main mass loss of 28.5% and mass-loss step of 2.5% at about 550°C. The 1st TG step is most probably due to surface water. The 2nd TG step is effected by dehydration of the magnesium hydroxide. The 3rd TGA step is most probably due to the decomposition of some $MgCO_3$ content.

NGB · Application Sheet 066 · E · 0621 · Technical specifications are subject to change.

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