



## POLYMER DIAGNOSTICS INC INSTRUMENTS - 2013

### RHEOLOGY

Rotational Rheometer  
 Capillary Rheometer  
 DMA

### MANUFACTURER

TA Instruments ARES-G2  
 Sieglaff-McKelvey and Gottfert Rheo-Tester 1000  
 Rheometrics RSAII and RSA-G2

### CHROMATOGRAPHY

GC/MS  
 GC/MS  
 SEC  
  
 SEC  
 UV-Vis spectrophotometer  
 GC  
 GC

HP 5973 MSD/HP 6890 GC+Tekmar HT3 autosampler  
 Varian 3800 GC + Saturn 2000 MS + Markes Unity 2  
 Waters 515 pump + 717 plus autosampler  
 2414 Refractive index detector + Viscotek UV 2600  
 Viscotek GPC Max + TDA 305 triple detector + UV 2600  
 Cary 300  
 HP 5890 + LEAP CombiPal autosampler  
 Agilent 7890 + Tekmar HT3 autosampler

### WEATHERING

QUV Weatherometers (12)  
 Xenon ARC Weatherometers (2)  
 Xenon ARC Weatherometers (3)  
 Color Spectrophotometer

QLAB  
 Q Sun by QLAB  
 Ci35a, Ci65a and Ci4000 by Atlas  
 Datacolor 650

### PHYSICAL TESTING

Tensile Properties  
 Flexural Properties  
 Tensile Fatigue Testing  
 Hardness  
 Melt Flow Rate  
 Moisture Analyzer  
 IZOD Impact  
 Tensile Impact Tester  
 Charpy Impact  
 Brittleness Tester  
 HDT/Vicat  
 Dielectric Strength  
 Impedance/Gain Phase Analyzer  
 High Resistance Meter  
 Dynamic Thermal Stability  
 Instrumented Impact Test

Instron /Instru Met  
 Instron /Instru Met  
 Instron 8872  
 New Age Exacta  
 Tinius Olsen  
 Arizona Instruments Vapor Pro  
 Ceast Resil Impactor  
 TMI  
 TMI  
 Tinius Olsen  
 Zwick 6-300 Allround Tester  
 Hipotronics  
 Hewlitt Packard  
 Hewlitt Packard  
 C.W. Brabender Plasticorder  
 Dynatup Instron 8857



## MICROSCOPY

Field Emission - Scanning Electron Microscope  
Energy Dispersive X-Ray  
Compound Microscope with Hot Stage  
Stereomicroscope  
Laser Light Scattering Particle Size Analyzer  
Compound Microscope  
Digital Optical Microscope  
Sputter Coater  
Freezer Mill  
Cryomicrotome  
Carbon Vacuum Evaporator

Hitachi S-4800  
Bruker Quantax 200  
Zeiss Axioimager.M2m  
Zeiss Discovery V20, Zeiss Tessovar  
Malvern Mastersizer S2000  
Zeiss Universal  
Keyence VHX  
Cressington 208HR  
Spex 6870  
RMC  
Denton

## INORGANIC ANALYSES

X-Ray Fluorescence XRF  
Inductively Coupled Plasma  
Closed Vessel Microwave Digestion System  
Open Vessel Microwave Digestion System  
Ultrasonic Nebulizer and Membrane Desolvator  
Muffle Ash Furnace

Thermo Scientific ARL Advant'X  
Agilent 710 ICP-OES Axial  
CEM MARS 6  
CEM STAR  
CETAC USN 6000  
Thermo Scientific Thermolyne F48025

## FIRE SCIENCE

Cone Calorimeter  
Horizontal Burn of Self-Supporting Plastics  
Horizontal Burn of Materials Used in Occupant  
Compartments of Motor Vehicles  
Vertical Burn, 20 mm  
Vertical Burn, 125 mm  
Oxygen Index  
FT1 Flame Test  
  
Cable Flame Test  
VW1 Flame Test  
  
FT2/FH Flame Test  
  
FV-1 Flame Test  
  
Thin Material Burning Test  
Glow Wire Test

Fire Testing Technology Dual Cone  
ASTM D635; UL 94  
ASTM D5132; FMVSS 302 (49 CFR 571.302)  
  
ASTM D3801; UL 94  
ASTM D5048; UL 9  
ASTM D2863  
UL1581, clause 1060; UL2556/CSA C22.2  
No 2556, clause 9.3  
UL1581, clause 1061  
UL1581, clause 1080; UL2556/CSA C22.2  
No 2556, clause 9.4  
UL1581, clause 1100; UL2556/CSA C22.2  
No 2556, clause 9.1  
UL1581, clause 1060; UL2556/CSA C22.2  
No 2556, clause 9.5  
UL-94  
IEC 60695 2-10, 2-11, 2-12, 2-13



## **FTIR and NMR**

NMR Spectrometer  
FT-IR Spectrometers (2)  
Infrared Microscope  
Ultracentrifuge  
Centrifuge  
Stereo Microscopes

Bruker Avance 300 MHz  
Nicolet 6700 and Nicolet 710 Spectrometer  
Nicolet Continuum  
Beckman Coulter Optima L-90K  
IEC Centra MP4 and Dynac  
Nikon SMZ15000 and Olympus SZ60

## **THERMAL ANALYSIS**

DSC  
TGA  
TMA  
Thermal Conductivity  
Moisture Analysis

TA Instruments Q2000  
TA Instruments Q500  
TA Instruments Q400  
Netzsch Nanoflash LFA 447  
Arizona Instruments Computrac MAX-2000,  
Karl Fischer Metrohm 851 Titrando Coulometer  
with an 874 Oven Sample Processor