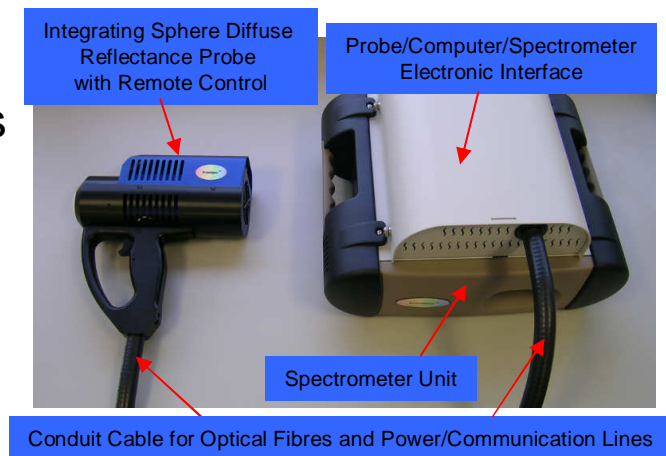


Visible/NIR spectroscopy
with fibre-optic probes

TranSpec™ Systems

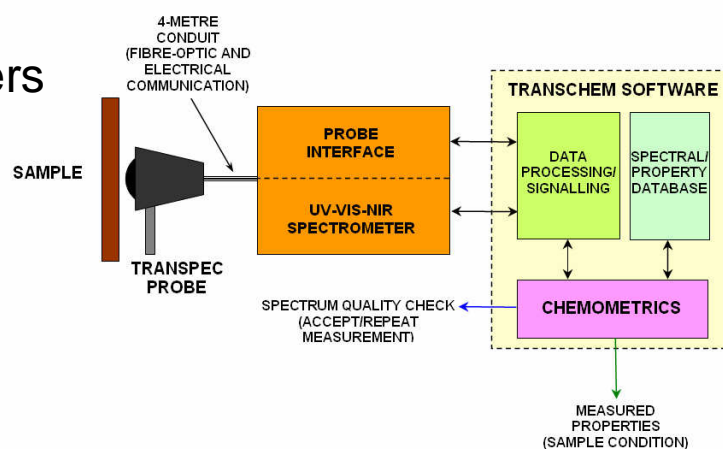
Features

- Visible/NIR broad spectral range
 - 350 to 2500 nm
- Portable and robust
- Fibre-optic linked probes
 - Integrating sphere
 - Diffuse reflectance
 - Transmission
- Remote operation
- Rapid scanning
 - < 1 sec



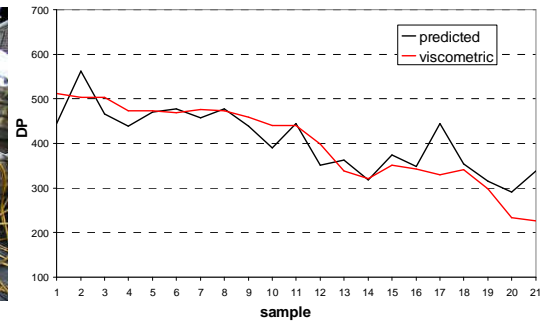
Applications

- Power insulation
- Plastics and polymers
- Paper
- Textiles
- Process control
- Food & beverage
- Pharmaceuticals
- Security & defence



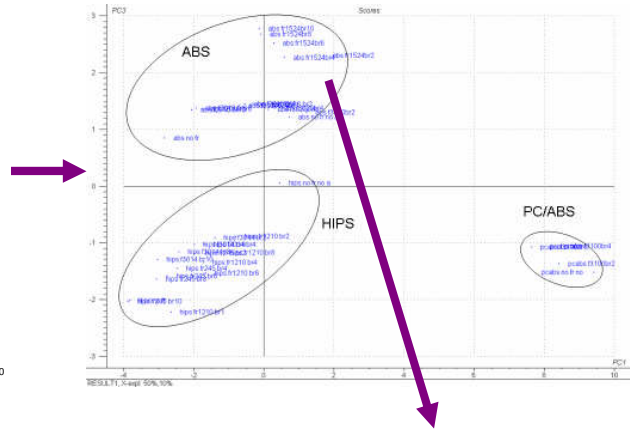
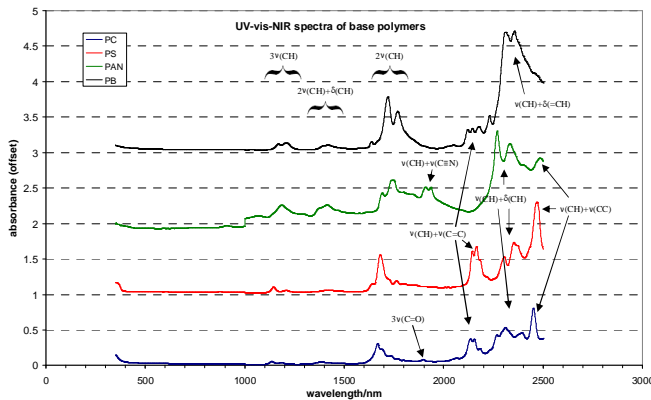
Case Histories

Transformer Insulation Assessment

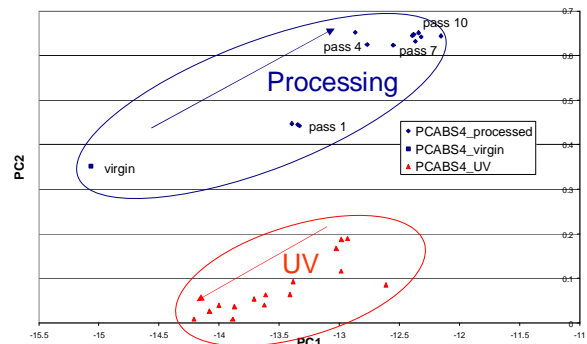


- Step 1. Obtain calibration data from samples in laboratory
- Step 2. Construct calibration models
- Step 3. Take measurements on site
- Step 4. Validate models and predict sample properties

Enclosure Plastics Assessment



- Step 1. Obtain polymer spectral database
- Step 2. Polymer type discrimination
- Step 3. Polymer property/quality determination



Specifications

Spectrometer and interface

Spectral range	350-2500 nm
Spectral Resolution (wavelength dependent)	3-10 nm
Detection	512 element Si photodiode array + 2 TE cooled InGaAs photodiodes
Stray light (spectrometer)	<0.1%
Weight	8.5 kg
Dimensions	H19.5, W37, L29 cm
Scan time	<0.1 sec
Wavelength repeatability	<0.01 nm
Fibre connections	SMA
Power	Mains 120/240V, Battery

Integrating Sphere Diffuse Reflectance Probe

Dimensions (probe body)	H10, W7.5, L22.5 cm
Dimensions (probe handle)	H14, W2.5, L11.5 cm
Weight	1.5 kg
Light source	Tungsten Halogen
Illumination spot size	5-10 mm
Integrating sphere	PTFE, Ø50 mm
Fibre collection	SMA
Electronic functions	Scan and reference remote trigger operation; spectrometer status and spectrum quality indication

High Intensity Diffuse Reflectance Probe

Dimensions	L25.4 cm
Weight	0.7 kg
Light source	Tungsten halogen
Illumination spot size	10 mm