



جامعة السلطان قابوس
Sultan Qaboos University

Requisition Form

Requisition Number: 7038/26/0070

Last Date for Submission: 29/06/2026

S.N.	SQU Product Code	Description	Qty	UOM	Remarks																																
1	EQUINSANS0011	DYNAMIC MECHANICAL THERMAL ANALYSER	1	Nos	<p>Dynamic Mechanical Analyzer (DMA) Q800 with Gas Cooling Accessory (GCA) OR Equivalent</p> <p>General Description DMA is a thermal-mechanical characterization instrument designed to measure the viscoelastic properties of polymers, composites, elastomers, films, fibers, biomaterials, adhesives, and other engineering materials as a function of temperature, time, frequency, stress, and atmosphere. It utilizes non-contact linear drive motor technology with high-resolution optical encoder displacement measurement for accurate modulus and damping characterization. More details are in this link:</p> <p>https://docs.google.com/document/d/1s_rhIrh4BVmnq_s_4BUlodSeK1R8vOCaT/edit?usp=drive_link&oid=110302868485855904870&rtpof=true&sd=true</p> <p>Technical Specifications</p> <table><tr><td>Parameter</td><td>Specification</td></tr><tr><td>Force Range</td><td>0.0001 N to 18 N</td></tr><tr><td>Force Resolution</td><td>0.00001 N</td></tr><tr><td>Strain/Amplitude Resolution</td><td>1 nanometer</td></tr><tr><td>Modulus Range</td><td>10^3 to 3×10^{12} Pa</td></tr><tr><td>Modulus Precision</td><td>$\pm 1\%$</td></tr><tr><td>Frequency Range</td><td>0.01 to 200 Hz</td></tr><tr><td>Dynamic Sample Deformation Range</td><td>± 0.5 to 10,000 μm</td></tr><tr><td>Temperature Range</td><td>-150 °C to 600 °C (with GCA)</td></tr><tr><td>Heating Rate</td><td>0.1 to 20 °C/min</td></tr><tr><td>Cooling Rate</td><td>0.1 to 10 °C/min</td></tr><tr><td>Isothermal Stability</td><td>± 0.1 °C</td></tr><tr><td>Tan Delta Resolution</td><td>0.00001</td></tr><tr><td>Atmosphere Capability</td><td>Air, Nitrogen, Inert Gas</td></tr><tr><td>Drive System</td><td>Non-contact Linear Motor</td></tr><tr><td>Displacement Measurement</td><td></td></tr></table>	Parameter	Specification	Force Range	0.0001 N to 18 N	Force Resolution	0.00001 N	Strain/Amplitude Resolution	1 nanometer	Modulus Range	10^3 to 3×10^{12} Pa	Modulus Precision	$\pm 1\%$	Frequency Range	0.01 to 200 Hz	Dynamic Sample Deformation Range	± 0.5 to 10,000 μm	Temperature Range	-150 °C to 600 °C (with GCA)	Heating Rate	0.1 to 20 °C/min	Cooling Rate	0.1 to 10 °C/min	Isothermal Stability	± 0.1 °C	Tan Delta Resolution	0.00001	Atmosphere Capability	Air, Nitrogen, Inert Gas	Drive System	Non-contact Linear Motor	Displacement Measurement	
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					Optical Encoder Technology Cooling System Gas Cooling Accessory (Liquid Nitrogen based)