

# SONELASTIC REPORT

Name: SC  
Manufacturer:  
Material: Silicon carbide  
Identification: SC-001  
Operator: HA  
Date/time: 11/11/2022 16:26:33

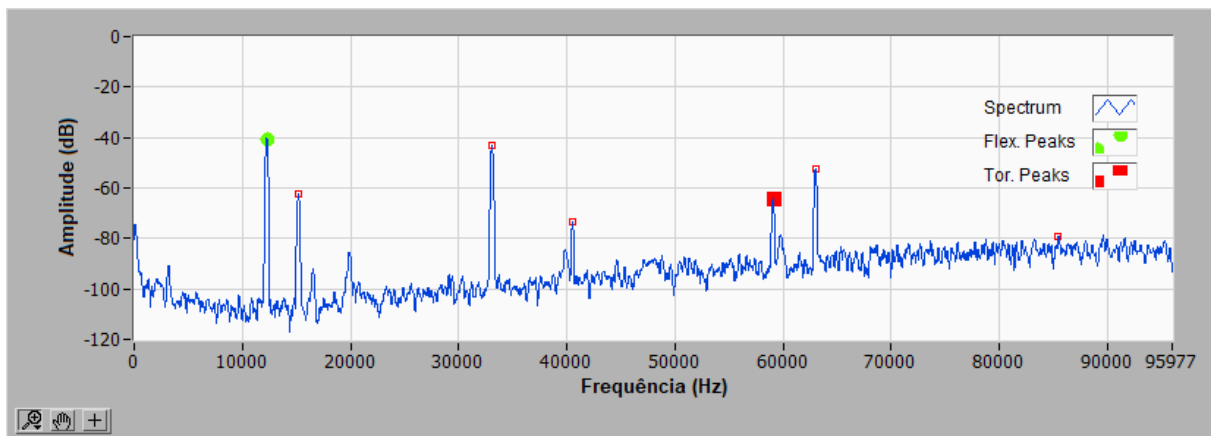
## Parameters:

Geometry: Rectangular  
Dimensions (mm): L:  $52.60 \pm 0.03$  , W:  $3.94 \pm 0.04$  , T:  $3.17 \pm 0.02$   
Mass (g):  $2.05 \pm 0.01$   
Density ( $\text{g/cm}^3$ ): 3.12  
Signal duration: 0.683  
Processing time: 5  
Optimized to include high frequencies: Yes  
Vibration mode: Flexural + torsional

## Results:

E (GPa): $345.739 \pm 8.820$	Frequency (Hz): 12247.313
G (GPa): $150.338 \pm 2.243$	Frequency (Hz): 59065.157
Poisson: $0.150 \pm 0.034$	
Damping (Ad. E-6): 0.000000	Frequency (Hz): 12247.313
Damping-TF (Ad. E-6):	Frequency (Hz): 12247.313

## Spectrum and frequencies selection:



Calculations involving torsional and flexural vibration modes are in accordance with ASTM-E1876-01 standard. Calculations involving the flexural mode of cylinders are in accordance with ABNT NBR 8522:2021-2 standard. Calculations involving the longitudinal vibration mode are in accordance with ASTM-E1876-22. The Eci estimative is in accordance with ABNT NBR 8522:2021-2, Annex B.

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Notes: