* Length of the sample for the test 🡪 21 mm (it is the gap of the test support)
* Weight per unit length 🡪
* Mass of just the section between the clamp and the spool:

Spool = 0.514 g and Heating wire = 0.01 g.

|  |  |
| --- | --- |
| SAMPLES | Weight |
| 50 g. Test | 0.115 g |
| 3 cycles. 300 g & 3 cycles 100 g Tests. | 0.125 g |
| 200 g & 100 g Tests. | 0.125 g |

300 g preload was 0.3kg\*9.81m/s^2\*0.003mm = 8.83 N-mm

Rotated by about 10 degrees = 10\*pi/180 = 0.175 rad

Work done = T\*theta = 8.83e-3 Nm \* 0.175 rad = 0.001545 N-m = 0.001545 J = 1.545e-6 kJ

Mass of sample under torque = 4.95e-5kg

Specific work capacity = = 0.0312 kJ/kg