

## TESA RUGOSURF 20

Portable roughness gauge, robust and versatile.

Well suited for production environments or inspection of inward goods.

Measures roughness parameters according to:

- ISO 4287
- JIS B0601
- DIN and ISO 12085 (MOTIF or CNOMO).

Measuring range in the Z-axis of 400  $\mu\text{m}$  (6300  $\mu\text{in}$ ).

15 roughness parameters.

Each parameter can be activated individually or not.

Possible tolerancing of parameter values.



Scope of supply

Direct display:

- of all measured values, with tolerance levels display,
- of R roughness profile,
- the Bearing Area Curve (BAC),
- the Amplitude Distribution Curve (ADC).



With a measuring stand with suction base

2" Black&White LCD screen, high contrast for optimum visual representation.

Flexible autonomy through mains adapter or battery pack.

Storage of the measured parameters.

Multilingual menu options.

USB cable connection (optional).

Direct printing to a dot matrix printer (optional).

Measurement transfer, database creation and reporting available using TESA RUGOSOFT software tool (optional).



Measurement of narrow hard to reach crevices thanks to the 100 mm probe extension

Access to narrow and hard to reach locations possible through 100 mm probe extension (optional).











With vertical positioning support



Description:

1. Start / Measure
2. Probe protection
3. LCD 2" screen
4. Enter key
5. Defilement key
6. Return key / Measurement parameters
7. ON/OFF Switch
8. Batter charger connector
9. USB Connector for PC
10. Printer connector

- ISO 3274 (Cl.1)
- 122 x 60 x 62 mm (without probe)
- USB
- 650 g

|   |   |
|---|---|
|    | <b>06930013</b>   |
|    | TESA RUGOSURF 20<br>portable surface roughness tester for use in the workshop<br>Z = ± 200 µm (± 0.0079 in)<br>X = 16 mm (0.63 in)  |
|    | Measuring span, µm 400 µm (0.0157 in) on Z axis, 16 mm (0.63 in) on X axis  |
|    | Indication span, µm Ra = 0 ÷ 100 µm; Rt = 0,05 ÷ 400 µm   |
|    | Accuracy class in accordance with ISO 3274 Class 1  |
|    | Measuring force, N 0,75 mN in accordance with ISO 3274  |
|    | Resolution, µm 0,001 µm   |
|    | Display LCD 2" black/white (160 x 100 pixels)   |
|    | Roughness parameters<br>DIN / ISO / JIS / ASME:<br>Ra, Rq, Rt, Rc, RSm, R <sub>Pc</sub><br>R <sub>mr</sub> , R <sub>z</sub> , R <sub>max</sub><br>PPc, P <sub>mr</sub><br>MOTIF ISO 12085 (CNOMO): Pt, R, R <sub>x</sub> , AR   |
|   | Graphics Bearing Area Curve (BAC), Amplitude Distribution Curve (ADC), Profile-R  |
|  | Cut-off length, mm 0,25 – 0,80 – 2,50 mm (0.010 – 0.030 – 0.100 in)   |
|  | Number of cut-off 1 to 5  |
|  | Stylus diamond tip<br>(R = µm; angle °) R = 5 µm, 90°   |
|  | Memory capacity<br>max 1000 measurements with parameters;<br>max 20 measurements with profile and graphics  |
|  | Dimensions, mm 122 x 60 x 62 mm   |
|  | Degree of protection for keyboard (IP XX) IP67 (membrane keyboard)  |
|  | Digital data output (USB) USB cable connector to PC   |
|  | Weight, g 650 g   |
|  | Included in delivery<br>RUGOSURF 20<br>SB10 standard skid probe<br>Roughness standard Ra = 2,97 µm<br>Positioning pin Ø 8 mm for use vertically<br>Detachable probe protector<br>Integral rechargeable battery<br>Charger and adapter EU/US<br>User manual<br>Plastic carrying and storage case |
|  | Measuring response time 1 to 10 s   |
|  | Probing speed, mm/s 1 mm/s (2 mm/s probe retract to measuring position)   |
|  | Units mm or inch  |
|  | Power supply 100 ÷ 240 VAC; 50 ÷ 60 Hz; 12 V, 400 ÷ 650 mAh   |



**OPTIONAL ACCESSORIES:**

|                 |  |
|-----------------|--|
| <b>04760099</b> | Cable RUGOSURF 20 to PC  |
| <b>06960033</b> | Printer for RUGOSURF + cables  |
| <b>06960034</b> | RUGOSOFT Software + Dongle   |
| <b>06960035</b> | Granite 400 x 250 mm with vertical support H150 mm, 25 kg, Grade 0 for Rugosurf 20 and 10G         |
| <b>06960081</b> | Probe SB10 2µm for RUGOSURF 20 and 10G as SB10 but R = 2 µm  |
| <b>06960037</b> | SB20 probe for RUGOSURF 20 et 10G for grooves of depth < 5 mm                                      |
| <b>06960038</b> | SB30 probe for RUGOSURF 20 and 10G for small bores of Ø > 4 mm                                     |
| <b>06960039</b> | SB40 Probe for RUGOSURF 20 and 10G V-shape for cylinders of Ø > 1 mm                               |
| <b>06960040</b> | SB50 probe for RUGOSURF 20 and 10G for concave surfaces and for measuring at 90° with RUGOSURF 10G |
| <b>06960057</b> | SB110 probe for RUGOSURF 20 and 10G for concave or convex surfaces, R > 5 mm                       |
| <b>06960056</b> | 100 mm extension for probe with skid for RUGOSURF 20, 10G, 90G                                     |
| <b>06960064</b> | Roughness standard Ra = 0,1 µm (4 µin)   |
| <b>06960065</b> | Roughness standard Ra = 0,5 µm (20 µin)  |
| <b>06960066</b> | Roughness standard Ra = 1,0 µm (40 µin)  |

**STANDARD ACCESSORIES:**

|                 |   |
|-----------------|---|
| <b>06960036</b> | SB10 standard probe for RUGOSURF 20 and 10G R = 5 µm, 90°   |
| <b>06960041</b> | Roughness standard Ra = 2,97 µm (117 µin)   |
| <b>06960045</b> | Battery NiMH 7,2 V, 300 mAh, format PP3 for RUGOSURF 20 et 10G  |
| <b>057655</b>   | Vertical and adjustable positioning supports (2 parts) V-form for cylinder Ø > 100 mm for RUGOSURF 20 |
| <b>057941</b>   | Transport case with internal protection foam for RUGOSURF 20  |

