

RUBEN 005 P&J PLASTOMETER



The RUBEN 005 P&J plastometer is a fully automatic microprocessor-controlled instrument for testing material hardness. This instrument uses a standard P&J measuring method.

A portable and fully automatic instrument for testing material hardness

RUBEN 005 provides reliable and accurate measurement results in demanding industrial environments, results that would normally only be achievable under laboratory conditions. RUBEN 005 instrument is a compact aggregate and can be easily moved from one measuring place to another. The device includes patented technology developed by Tieto-Oskari Oy. Ruben 005 instrument meets the requirements of the P&J standard.

Saving and exporting of measuring results

The device saves the measuring results in the memory, and the information can be transferred to the PC. The measuring results can be printed and reported using the RUBEN Explorer software, and they can also be easily exported to, for example, a spreadsheet application. Additional information about the measured object can be added to the measurement results. The results can be sorted, averages calculated, and measurement reports generated.

Thermometry of the material surface and instrument installation angle

The RUBEN 005 instrument also measures and records the material surface temperature and the instrument's measurement angle, which are stored as supplementary information alongside the measurement results.

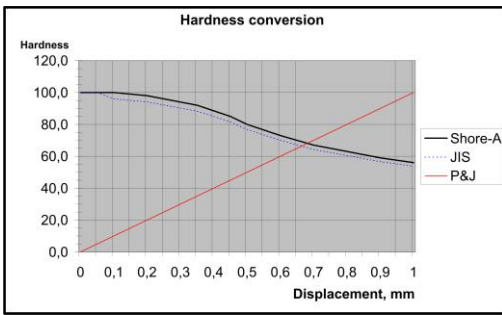
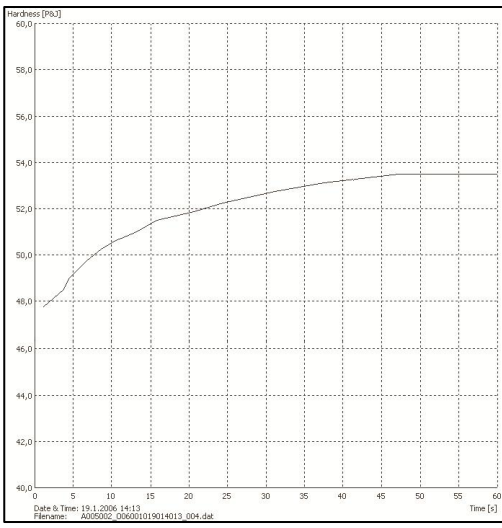
Easy to measure

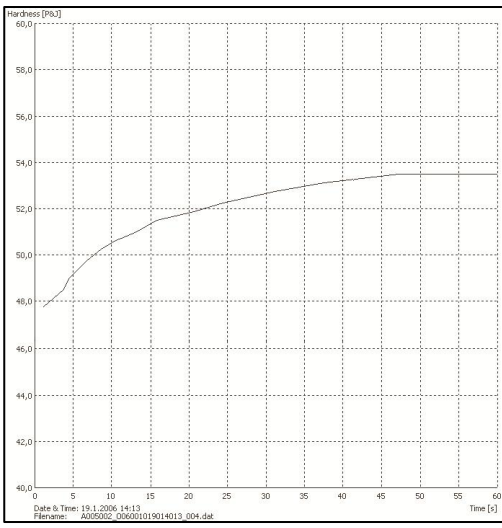
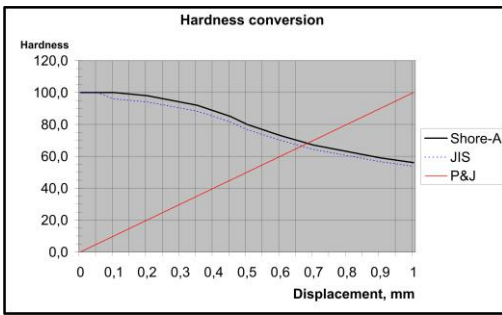
The measuring sequence starts, when the user presses the 'MEAS/ON' button. A standard-compliant measurement takes 60 seconds, during which the probe analyses the hardness of the measured surface. The result is displayed on the instrument's screen and automatically stored in its memory. The instrument can also display the average P&J value for a series of measurements.

Diagnostics features

The **RUBEN 005** P&J plastometer has many self-diagnostics features to ensure the right measuring result. Calibration of the instrument is quick and straightforward.

TECHNICAL SPECIFICATION

Intender	Ball: Ø 3,175 mm	
Loading weight	1000 g ± 1 g	
Measuring range	0–300 P&J unit	
Measuring resolution	0,001 mm (0,1 P&J)	
Reading of measured values	0,5 P&J or 0,1 P&J	
Accuracy	Typically error smaller than +/- 0,2 P&J	
Operating temperature	Ambient temperature +10 to +40 °C	
Reading units	P&J, JIS, SHORE-A, SHORE-D (NOTE: JIS and SHORE units are only for comparisons)	
Memory	50-100 measurements, battery backup	
Weight	< 5 kg	
Dimensions	188 x 130 x 230 (W x L x H)	
Power supply	Inside accumulator, more than 200 meas- urings without charging	
Accessories	➤ Transport case ➤ AC/DC adapter 24Vdc for charging ➤ USB cable ➤ Zero-point calibration platform ➤ RUBEN Explorer PC software (optional) ➤ RUBEN Laboratory stand (optional)	
Special properties	➤ Intender displacement versus time curve measurements ➤ Self-recovery measurement ➤ Electronic angle measuring ➤ Material surface non-contacting thermometry ➤ Surface detection with a constant force ➤ Real time clock for measurement time stamp	



Measurement Report				
Note: 2 years old roll				
Tag Name:	All			
Date Range:	16.12.2005 - 16.12.2005			
Batch Range:	1 - 15			
Tag Range:	1 - 3			
Hardness	Temp.	Angle (X/Y)	Result	Analysis File
14,5 P&J	24,8 °C	0,3/-2,3	Pass	
14,7 P&J	25,1 °C	0,7/-0,2	Pass	
14,5 P&J	25,6 °C	0,8/-2,1	Pass	
14,1 P&J	26,1 °C	1,1/-1,1	Pass	
13,9 P&J	26,6 °C	1,1/-1,9	Pass	
13,9 P&J	26,7 °C	1,3/-1,0	Pass	
12,9 P&J	27,1 °C	1,4/0,0	Pass	
12,5 P&J	27,4 °C	1,7/-1,3	Pass	
14,7 P&J	28,0 °C	2,2/0,5	Pass	
14,5 P&J	28,3 °C	2,6/0,6	Pass	
Hardness	Temp.	Measurements	Result	
14,6 P&J	26,3 °C	5	Fail	
14,0 P&J	26,4 °C	3	Pass	
12,7 P&J	27,2 °C	2	Pass	



Syvöjankatu 3B
87700 Kajaani, Finland
Tel. +358 20 764 9494
myynti@tieto-oskari.fi
www.tieto-oskari.fi

