JOKISCH FOSIA TEST H20

Hand refractometer for concentration determination.
Hand refractometer „Standard 20" | Standard-temperature: 20°C
Measuring range: 0 - 20% | Accuracy: ± 0,2%
Standard substance for the regulation of the scale: distilled water

APPLICATION

All water soluble cooling lubricants (emulsions as well as clear solutions) need to be – as far as the concentration is concerned – permanently checked, depending on the required mixing ratio, e.g. 5% = 1:20. Because the water, which is in the cooling lubricant evaporates, the concentration is rising continuously.
This can cause some negative effects, e.g.: increased cooling lubricant consumption, an increase in the pH-value. On the other hand there is the danger, that the dilution is too strong and thus the corrosion protection is insufficient. Long-term stability may then no longer be assured. To determine concentration levels with a hand refractometer is an advantage, because emulsions as well as synthetic cooling lubricants can be tested. The use is very simple!
The consumption of cooling lubricants is thereby considerably reduced, thus resulting in significantly reduced disposal costs!

INSTRUCTION FOR USE

1. Set the scale: The most important thing to do, for the practical measurement, is setting the scale and its check, whether it has to be corrected or not. If yes, the scale can be adjusted for use. To do this, set the regulation screw appropriately. For the setting of Typ „Standard 20“ use destilled water.
Exempel: 0% on the scale of this hand refractometers is set for distilled water at the temperature of 20°C. Open the prism cover and apply one drop of distilled water to the surface of the illuminating prism. Close the prism cover and look through the eyepiece lens. You see a horizontal borderline of brightness and darkness as well as a vertical scale in the optic. If the scale is in order, the horizontal borderline and the vertical scale have to coincide at 0%. If not, the scale has to be adjusted with the regulation screw, while looking through it. By turning the regulation screw, the horizontal borderline can be moved up or down. This way you can make the horizontal line coincide with the vertical scale at 0%. Normal daylight is sufficient for all types of hand refractometers, only the angle of incidence of light varies.
2. Practical measurement: Wipe the distilled water off. Adjust the scale as usual. Then apply some drops of the substance to be measured. The prism cover has to be closed. And then you can read the scale value off at the point where the horizontal borderline coincides with the vertical scale in the optic. The scale value has to be multiplied with the refractometerindex of the KSS to obtain the application concentration.
Note: After each measurement the substance has to be removed carefully and meticulously with cellulose or a soft cloth.

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JOKOBA Technologies GmbH

Industriestraße 5-10 | 33813 Oerlinghausen
T +49 52 02 97 34 0 | F +49 52 02 97 34 49
info@jokoba.de | www.jokisch-fluids.de

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