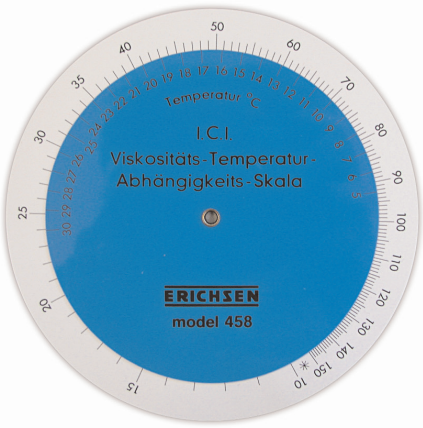
VISCOSITY

NOMOGRAM

TEMPERATURE-DEPENDENT

VISCOSITY SCALE

Model 458



testing equipment for quality management

ERICHSEN

Nomogram disk for conversions between

- **viscosity data for various reference temperatures**
- **different viscosity units**

VISCOSITY NOMOGRAM and TEMPERATURE-DEPENDENT VISCOSITY SCALE 458

Purpose and Application

The Nomogram Disk 458 is designed for the conversion of viscosity measurement data in various unitary systems which have a specified reference temperature within any one unitary system.

- The VISCOSITY NOMOGRAM makes it possible to convert viscosity data into the following units (reference temperatures between 15°C and 25°C):
- cSt = mm^2s^{-1}
- cP = mPa s
- Engler degrees
- Krebs Stormer units
- Gardner Holdt units
- Efflux times
  - ISO 2431 (4 mm)
  - ASTM D 1200 (Ford No. 3, No. 4)
  - DIN 53 211

The TEMPERATURE-DEPENDENT VISCOSITY SCALE is used for converting viscosity data for reference temperatures in the range between 5°C and 30°C.

Design and Function

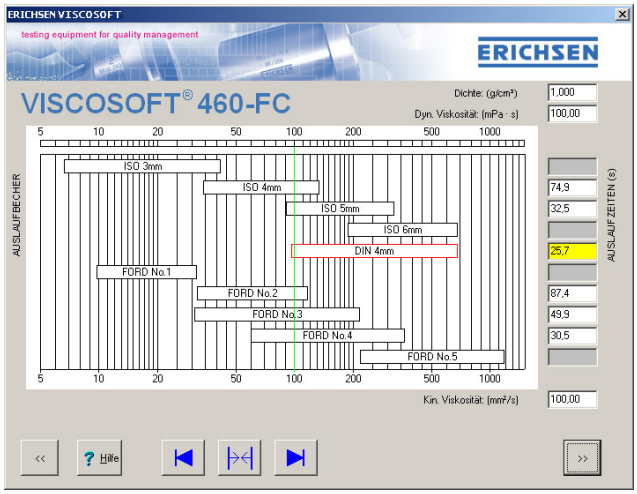
The conversion nomograms are combined in one disk which can be used from both sides.
A direct comparison between different units of viscosity is possible on the VISCOSITY NOMOGRAM by way of a simple indicator reading. By conversions between kinematic (cSt = $mm^2 s^{-1}$) and dynamic (cP = mPa s) units the liquid density in the range between 0.7 and 1.5 g/cm^3 can be specified.

On the TEMPERATURE-DEPENDENT VISCOSITY SCALE the conversion is effected by reading off adjacent scales for viscosity by temperature. These scales are turned in opposite directions on the slide rule principle. The conversion is based on a temperature coefficient of 5.5 %/°C.

The use of both nomograms is dependent on the test liquids featuring approximate Newton behaviour.

Order Information	
Order No.	**Description of Product**
0099.01.31	**Viscosity Nomogram and temperature-dependent Viscosity Scale, Model 458**

A **modern alternative** to the VISCOSITY NOMOGRAM is presented in the form of VISCOSOFT® 460-FC software which has been specifically developed to enable rapid conversions between viscosity and efflux times for standardized flow cups. A separate leaflet describing this software is available from us on request.



Subject to technical modification.
Gr. 2 - TBE/BAE 458 - IV/2004

ERICHSEN GmbH & Co. KG
Postfach 1264 | 58652 Hemer | Germany | Tel. +49(0)2372-9683-0 | Fax +49(0)2372-6430 | www.erichsen.de | info@erichsen.de