DYNAMIC SHEAR RHEOMETER

Year of Purchase : 2014
Cost : 15.54 Lac

Experiment : To characterize the viscous and elastic behavior of asphalt binders at medium to high temperatures.

Refrigerated / Heating Circulators

Technical Specification

Working Temp Range	:	-28°C to 200°C.
Temp Stability	:	±0.01 °C
Cooling Cap	:	+20.0 0 -20.0 °C
Medium Ethanol	:	0.26 0.20 0.60
Refrigerant	:	R134a
Overall Dimensions (W X D X H)	:	23 x 42 x 64 cm
Bath Opening (W x L)	:	12 x 14 cm
Bath Depth (D)	:	14 cm
Filling Volume (Liters)	:	3…4,5
Weight (Kg)	:	32
Mains Power Connection	:	230/50 VAC
Current draw (A)	:	12

Environmental conditions according to IEC 61 010-1:

Use indoors only. Altitude up to 2000 m - normal zero. Ambient temperature: see Technical Specifications Humidity: Max. relative humidity 80% for temperatures up to +31 °C, linear decrease down to 50% relative humidity at a temperature of +40 °C Max. mains voltage fluctuations of ±10% are permissible.

Cooling water connection Cooling water pressure (IN/OUT) max. 6 bar Difference pressure (IN - OUT) 3.5 to 6 bar Cooling water temperature

Recommended quality of cooling water:

pH – value 7,5 to 9,0
Sulfate [SO4 2-] < 100 ppm
Hydrocarbonate [HCO3-]/Sulphate [SO4 2-] > 1 ppm
Hardness [Ca2+, Mg2+]/[HCO3-] > 0,5 dH
Alkalinity 60 ppm < [HCO3-] < 300 ppm
Conductivity < 500 µs/cm
Chloride (CL-) < 50 ppm
Phosphate (PO43-) < 2 ppm
Ammonia (NH3) < 0,5 ppm
Free Chlorine < 0,5 ppm
Ferri Ions (Fe3+) < 0,5 ppm
Mangano Ions (Mn2+) < 0,05 ppm
Carbon dioxide (CO2) < 10 ppm
Hydrosulfide (H2S) < 50 ppm
Content of oxygen < 0,1 ppm
Algae growth : Impermissible
Suspended solids: Impermissible