

AC&R OILS REFRACTOMETER

This refractometer is an essential instrument that permits the quick and accurate determination of the refractive index for oils and oil mixtures. It is used to determine the percentage of residual MO Mineral Oil left in an AC/R system after Retrofit processing (substitution of a CFC or HCFC refrigerant from the system into a new HFC ecological one).

In CFC systems (R12, R22, R502) or HCFC is required the conversion of :

- A Mineral Oil (MO) into a PolyOIEster (POE);
- A Mineral Oil (MO) into a PolyAlkylene Glycol Oil (PAG);
- A Mineral Oil (MO) into an AlkylBenzene Oil (AB);
- An AlkylBenzene Oil AB (Zerol) to a PolyOIEster (POE), suited for the HFC (R134a, R404a, R407c, R410a, R-424a, R426a, R507...) systems. A percentage of old oil higher than 5% in the AC/R system may cause difficulties when new fluids evaporate.

Up until now for the identification of the lubricant residuals we used to follow old expensive procedures with the implication of Certified Labs; with this refractometer the procedures are quickly simplified. It actually identifies lubricant residuals by measuring the Refractive Index (nD) and its place in the furnished diagram.

- Eyeguard;
- High impact housing;
- Eyepiece (Adjusting ring of diopter);
- Recalibration screw (screwdriver furnished);
- High contrast blue/white scale and accurate reading;
- Oil dropper (furnished);
- Plastic carrying case.

Specifications:

Refractive Index range : 1,435 ÷ 1,520 (nD);

Accuracy : 1%;

Resolution : 0,001 (nD);

Temperature : 15,5° to 26,7°C. (60° to 80°F.);

Dimensions and Weight : Ø 40 x 160 mm. - 180 gr.

Method of operation:

1. Open the cover plate;
2. Using the oil dropper place a few oil drops on the measuring prism. Close the cover plate and press it lightly;
3. Hold the refractometer up to a light source and adjust the focusing ring so that you can read the scale;
4. Note the value where the boundary line crosses the scale.



REF109b

Model	Description
REF109b	AC&R Oils Refractometer. Refractive Index range 1,435 ÷ 1,520 nD w/plastic carrying case.

REFRIGERATION OILS - REFRACTIVE INDEX nD @ 20°C. (68°F.)			
ICI Emkarate RL 22H	1,452	ICI Emkarate RL170H	1,459
ICI Emkarate RL 22CF	1,455	ICI Emkarate RL220H	1,458
ICI Emkarate RL 22N	1,452	Castrol SW 32	1,451
ICI Emkarate RL 32S	1,455	Castrol SW 68	1,454
ICI Emkarate RL 32CF	1,455	Castrol SW100	1,455
ICI Emkarate RL 32H	1,453	Castrol E 68	1,454
ICI Emkarate RL 68H	1,456	Castrol E100	1,455
ICI Emkarate RL 68HP	1,456	Suniso 3GS	1,486
ICI Emkarate RL 68S	1,456	Suniso 4GS	1,502
ICI Emkarate RL100S	1,457	Suniso 5GS	1,504
ICI Emkarate RL100H	1,458	Mobil EAL Arctic 22CC	1,452
ICI Emkarate RL150S	1,458		

