

# Studies on Room Temperature Ferroelectric Liquid Crystal, 12CN5(R\*)

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Characterization studies are performed on a ferroelectric liquid crystal, 12CN5(R\*). Phase sequence and transition temperatures are obtained by polarized thermal microscopy. Temperature variation of spontaneous polarization and tilt angle in the smectic C\* phase are found to agree with the mean-field predictions. Results obtained for the variation of the switching time and torsional viscosity with temperature are also presented.

*Key words:* Ferroelectric Liquid Crystal; Spontaneous Polarization; Smectic C\* Phase.