The dielectric constant (symbol: $\varepsilon$) of a solvent is a measure of its polarity. The higher the dielectric constant of a solvent, the more polar it is.

eg:

The dielectric constant of water is higher than that of methanol; water is more polar than methanol. One practical consequence is a covalent solute dissociates into ions to a greater extent in water than in methanol.

equilibrium constant for dissociation of MX = K_{dis}

One must not confuse the dielectric constant of a solvent with its dipole moment. The dipole moment of a solvent, or of any covalent compound, is a microscopic property, meaning it is a property of the molecule of the compound. In contrast, the dielectric constant of a solvent is a macroscopic property, meaning it is a property of a pure sample of the solvent. Given below is the scattergram of the dielectric constants of sixteen solvents against their dipole moments, showing that there is no clear correlation between the dielectric constant of a solvent and its dipolar moment.

graph1