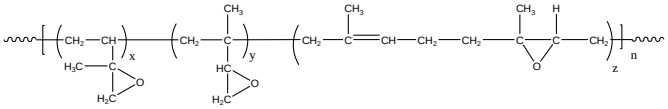
<u>Sample Name</u>: Polyisoprene epoxy
(1,4 rich addition and 1,2 and 3,4 addition epoxy)

<u>Sample #:</u> P10963-IPEpoxy

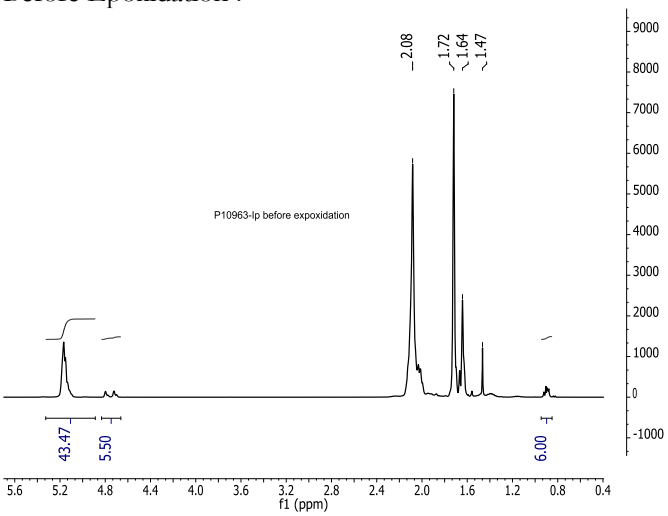
Structure:

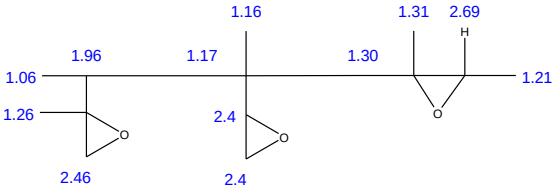


Composition:

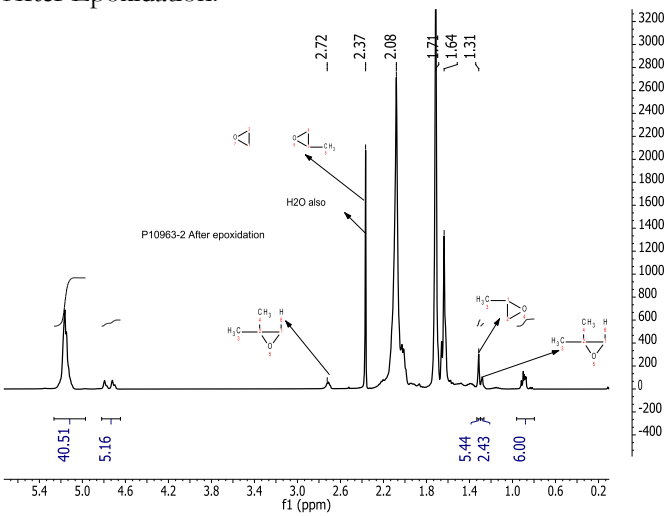
M_n x 10^3	PDI
2.6	1.2
Epoxydation: 8 mol %	

Synthesis Procedure:
Polyisoprene epoxy (1, 4 addition rich) is obtained by living anionic polymerization of isoprene in polar media and followed by epoxidation.
Control epoxidation : preferential epoxidation of the branch 1,2 addition fractions
Characterization:
% of expoxidation was analyzed by NMR.
Thermal analysis:
Thermal analysis of the samples was carried out on a TA Q100 differential scanning calorimeter at a heating rate of 20°C/min.The midpoint of the slope change of the heat flow plot of the second heating scan was considered as the glass transition temperature (T_g).
Solubility:
Polymer is soluble in THF, chloroform, toluene and in hexane.
^{H}NMR of homopolymer:
Before Epoxidation :

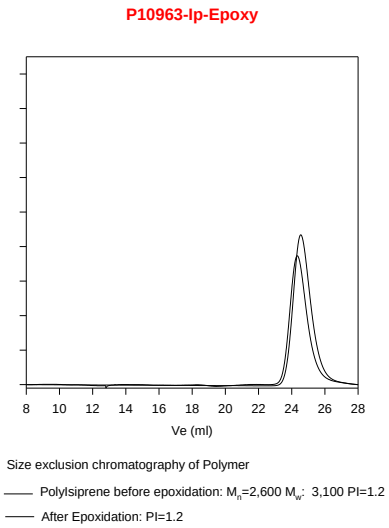




After Epoxidation:



SEC of homopolymer:



DSC thermogram for the sample: