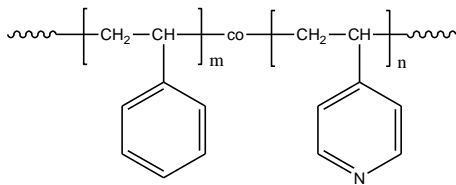


Sample Name: Random Copolymer Poly (styrene-co-4-vinylpyridine)

Sample #: P40990-S4VPran

Structure:

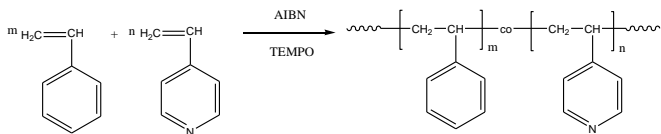


Composition:

Mn x 10 ³ PS-co-P4VP	PDI
52.0	1.8
P4VP (mol%) : 75	

Synthesis Procedure:

The polymer is prepared by radical polymerization of styrene and 4-vinylpyridine in the presence of TEMPO. The scheme of the reaction is illustrated below:



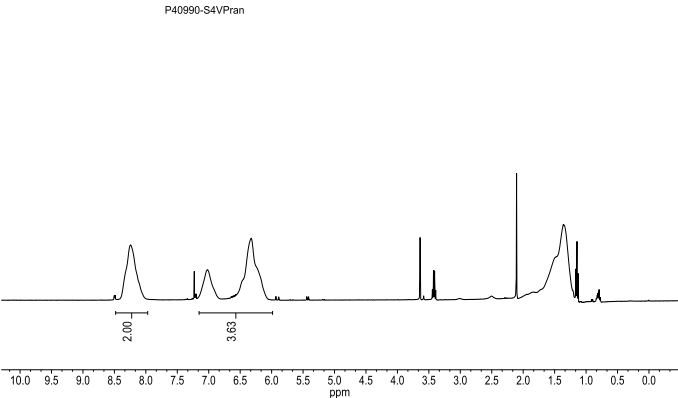
Characterization:

The polymer was analyzed by size exclusion chromatography (SEC) to obtain the molecular weight and polydispersity index (PDI). The copolymer composition was calculated from ¹H-NMR spectroscopy by comparing the peak area of 4VP protons at 8.28 ppm with the styrene protons at about 6.1-7.2 ppm that deducts the contribution of the 4VP protons.

Solubility:

The polymer is soluble in CHCl₃, THF, DMF, toluene and precipitated out from hexane

¹H-NMR Spectrum of the random copolymer:



SEC of the random copolymer:

