

## CARBOPOL® 934 NF POLYMER

Carbopol® 934 NF polymer meets the limits cited in the current edition of the following monograph:

- United States Pharmacopeia/National Formulary (USP/NF) monograph for Carbomer 934

### General Product Characteristics

Appearance: White, fluffy powder

Odor: Slightly acetic

Test	Specification	Lot Test Frequency <sup>1</sup>	Test Procedure <sup>2</sup>
<b>Identification</b> Colorimetric test Gel formation test	Pass Pass	1:200 1:200 <sup>3</sup>	USP/NF USP/NF
<b>Carboxylic Acid Content, Assay %</b>	56.0 - 68.0	1:1	Lubrizol 1318-A
<b>Viscosity, cP, 25°C</b> Brookfield RVT, 20 rpm, neutralized to pH 7.3 - 7.8  0.2 wt% mucilage, spindle #4 0.5 wt% mucilage, spindle #6	  2,050 - 5,450 30,500 - 39,400	  1:1 1:1	  Lubrizol 430-I Lubrizol 430-I
<b>Loss on Drying, %</b>	2.0 max	1:1	USP/NF
<b>Residual Solvent<sup>4</sup>, ppm</b> Benzene	1,000 max	1:1	Lubrizol SA-095
<b>Residual Monomer, ppm</b> Free acrylic acid	2,500 max	1:1	Lubrizol SA-005

<sup>1</sup> Where lot test frequency is less than 1:1, Lubrizol Advanced Materials, Inc. certifies that each batch/lot meets requirements for the characteristics based on historical process and product data. Because these characteristics are tested on a skip-lot test frequency, results are not reported on the Certificate of Analysis.

<sup>2</sup> Lubrizol test procedures have been cross-validated to specified compendial procedure(s) or validated if they are included in the monograph.

<sup>3</sup> Gel formation is confirmed by the viscosity test procedure (Lubrizol 430-I) for each lot of polymer that is produced. Every 200 lots, the gel formation test is conducted according to USP requirements.

<sup>4</sup> No other residual solvents as listed in USP/NF <467> (Class 1, 2, 3, Table 4 or any other solvents) or Ph. Eur. 2.4.24 are used in the manufacturing process of this product. Since the monograph specifies a limit for benzene, the Residual Solvents test <467> limit for benzene is superseded by the monograph limit.

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