



PROCESS ECONOMICS PROGRAM

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Abstract

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NYLON 66

(February 1980)

Nylon 66 is made by polycondensation of hexamethylene diammonium adipate, commercially known as nylon salt. Nylon salt, made from hexamethylenediamine and adipic acid, is produced as an aqueous solution if it is to be used cap-
tively or as a solid if it is to be transferred. The polycondensation starts from an aqueous solution, and produces a nylon melt. The reaction is conducted in three-stages: first in a tank or in a heat-exchanger/column, second in a tubular reactor, and finally in a vessel under a slight vacuum. Nylon melt can be pelletized to form nylon resin, or spinning chips. Nylon resin may be further treated for use in extrusions.

Nylon 66 fiber can be melt-spun from chips, or it can be spun directly from the melt. Processes for making representative grades of carpet staple, carpet yarn, tire cord, textile yarn, and hosiery monofilament are described and evaluated in this report.

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NYLON 66

SUPPLEMENT A

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For detailed marketing data and information, the reader is referred to one of the SRI programs specializing in marketing research. The CHEMICAL ECONOMICS HANDBOOK Program covers most major chemicals and chemical products produced in the United States and the WORLD PETROCHEMICALS Program covers major hydrocarbons and their derivatives on a worldwide basis. In addition, the SRI DIRECTORY OF CHEMICAL PRODUCERS services provide detailed lists of chemical producers by company, product, and plant for the United States and Western Europe.

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