

MOLECULAR Chemical Systems™



Liquid Polyurethane Elastomer System

Technical Data for Aquapol® PT-17000-62 Prepolymer

Aquapol® PT-17000-62 prepolymer is a toluene diisocyanate-based urethane polymer utilized in the manufacturing of hydrophilic foams and coatings. Aquapol® PT-17000-62 prepolymer has found use in a wide range of applications ranging from medical foams, viscoelastic earplugs, cosmetic sponge, and specialty coatings and foams. Due to the hydrophilic backbone, this polymer and resultant foams and coatings absorb and retain a large quantity of liquid (water and alcohol).

Typical Properties	Range
NCO (%)	6.0-6.55
Viscosity @ 25°C (cP)	12,000-22,000
Density (lb/gal) @ 25°C	1.17-1.20
Storage Temperature (°F)	60-80
Color	Clear, Amber; Free of Particulates
Shelf Life* (months)	6

*Shelf life is dependent on storage conditions. Components should be stored in tightly capped containers with nitrogen-blanketed head-space. Components should be stored in a temperature-controlled environment of approximately 75°F. Avoid extreme temperatures and significant changes in temperature. Always have an SDS available.

PHYSICAL Characteristics

Characteristics	Benefits
Excellent shock absorption	Useful in sporting equipment, heavy duty cushioning applications and energy absorption
High capacity for heat and cold	Hot and cold compresses or packs
Moldable	Will maintain an infinite variety of shapes
Sterilization via radiation	Medical applications
Exceptionally hydrophilic	Forms stable, high water-containing gels and can be formulated to generate foams with great aqueous absorption capacity

Carpenter Co.
Chemical Systems Division
Customer Service 800-444-5132
www.carpenter.com



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Safety & Ordering Information

Safety

All sales of products manufactured by Carpenter Co. and described herein are made solely on the condition that our customers comply with applicable health and safety laws, regulations, and orders relating to the handling of our products in the workplace.

Before using, please read all product labels and the Safety Data Sheet for each product. A general Safety, Health, and Toxicity bulletin is also available from Carpenter. All this literature, if presently not on your site, can be obtained from the Customer Service Representative.

Polyurethane products manufactured or produced from this liquid system may represent a serious fire hazard if improperly used or allowed to remain exposed or unprotected. The character and magnitude of any such hazard will depend upon a broad range of factors which are controlled and influenced by the manufacturing and production process, by the mode of application or installation, and by the function and usage of the particular product. ***Any flammability rating contained in this literature is not intended to reflect hazards presented by this or any other material under actual fire conditions. These ratings are used solely to measure and describe the products response to heat and flame under controlled laboratory conditions.*** Each person, firm, or corporation engaged in the manufacture, production, application, installation, or use of any polyurethane product should carefully determine whether there is a potential fire hazard associated with such product in a specific usage and utilize all appropriate precautionary and safety measures. In case of an emergency please call Chemtrec at 800-424-9300.

Ordering

Molecular Chemical Systems™ are available in bulk (tank wagon), tote bin, or 55-gallon drums. To place an order or obtain additional information, please call **Customer Service at 800-444-5132**