



Utechllan U.90AP10

U-P grade series, ester / Shore hardness A 91 - 94

injection molding grade; high mechanical strength; good heat and hydrolysis resistance;

Property	Test Condition	Unit	Standard	Typical Value
Mechanical properties (23 °C)				
shore hardness, method A		-	ISO 868	92
Ultimate tensile strength	200 mm/min	MPa	DIN 53504	62.0
Strain at break	200 mm/min	%	DIN 53504	460
Stress at 100 % strain	200 mm/min	MPa	DIN 53504	8.8
Stress at 300 % strain	200 mm/min	MPa	DIN 53504	28.0
Abrasion resistance		mm ³	ISO 4649, method B	40
Tear propagation resistance	500 mm/min	kN/m	ISO 34-1	130
Compression set	24 h; 70 °C	%	ISO 815	43.3
Compression set	72 h; 23 °C	%	ISO 815	17.5
Other properties (23 °C)				
Density		kg/m ³	ISO 1183-1	1180
Molding conditions				
Injection molding-Melt temperature		°C	-	200- 220
Injection molding-Mold temperature		°C	-	20 - 40
Maximum drying temperature		°C	-	100

Disclaimer

Disclaimer for Sales products

This information and our technical advice - whether verbal, in writing or by way of trials - are given in good faith but without warranty, and this also applies where proprietary rights of third parties are involved. Our information and advice does not release you from the obligation to test our products to determine to your own satisfaction whether they are suitable for the intended processes, uses and product lifetime. This application-specific test must at least include testing to determine the suitability from a technical as well as health, safety and environmental standpoint. Such testing has not necessarily been done by us. The application, use and processing of our products and the products manufactured by you on the basis of our technical data or advice are beyond our control and, therefore, entirely your own responsibility. Our products are sold in accordance with the current version of our General Conditions of Sale and Delivery. With respect to health, safety and environment precautions, the relevant Material Safety Data Sheets (MSDS) and the instructions on the product labels/packaging should be read and adhered to prior to working with our products.

Disclaimer Non Medical Grade

This product is not designated as "Medical Grade" [i] and therefore shall not be considered a candidate for the manufacture of a medical device or of intermediate products for medical devices, which are intended under normal use to be brought into direct contact with the patient's body (e.g., skin, body fluids or tissues, including indirect contact to blood)*. This product is also not designated for Food Contact [ii], including drinking water, or cosmetic applications. If the intended use of the product is for the manufacture of a medical device or of intermediate products for medical devices, for Food Contact products or cosmetic applications, Covestro Taiwan Limited must be contacted in advance to provide its agreement to sell such product for such purpose. Nonetheless, any determination as to whether a product is appropriate for use in a medical device or intermediate products for medical devices, for Food Contact products or cosmetic applications must be made solely by the purchaser of the product without relying upon any representations by Covestro Taiwan Limited. [i] Please see the "Guidance on Use of Covestro Products in a Medical Application" document. [ii] As defined in Commission Regulation VO (EU) 1935/2004.

Typical values

Unless specified to the contrary, the values given are typical values which have been established on standardized test specimens at room temperature. The figures should be regarded as guide values only and not as binding material specification or warranted properties. Values can be varied to a considerable extent depending on the design of the mold/die, the processing conditions and coloring of the product.

Processing note

Under the recommended processing conditions small quantities of decomposition product may be given off during processing. To preclude any risk to the health and well-being of the machine operatives, tolerance limits for the work environment must be ensured by the provision of efficient exhaust ventilation and fresh air at the workplace in accordance with the Material Safety Data Sheet. In order to prevent the partial decomposition of the polymer and the generation of volatile decomposition products, the prescribed processing temperatures should not be substantially exceeded.

Disclaimer

All of the information, documents and illustrations published on this website are the exclusive property of COVESTRO. Permission for their use is given on the proviso that the copyright note appears on all copies, that only personal and not commercial use is made of the information, that the information is not altered in any way and that all illustrations on the website are used only in conjunction with the associated texts. COVESTRO assumes no liability or warranties with respect to the information, documents and illustrations on the website. COVESTRO is not responsible for any damage of whatever nature that might arise from the use or existence of the website and the information, documents and illustrations it contains. The user bears full responsibility for all risks to him that might arise from the use of this website. COVESTRO reserves the right to amend or supplement the documents and information provided on the website at any time and without prior notice. The user of this website is fully responsible for the content and correctness of details he or she sends to COVESTRO, as well as for non-violation of any third-party rights that may be involved in such details.

Publisher: Research & Development – Thermoplastic Polyurethane APAC
Covestro Taiwan – Chang Hua Site
No 8. Chang Bin East 6th Road, Chang Hua Coastal Industrial Park,
Yu Pu Village, Hsien Si Hsiang, Chang Hua County 50741, Taiwan, ROC
www.covestro.com www.TPU.covestro.com