

## XW5803

### Technical Datasheet

XuanWu XW5803 resin is polyamide 66 compound with 40% carbon fiber reinforcement. It offers ultra-high performance on mechanical and thermal properties.

Property	Test Method	Unit	Value
<b>MECHANICAL</b>			
Tensile Strength	ASTM D638	kg/cm <sup>2</sup>	2400
Elongation (at break)	ASTM D638	%	7
Flexural Modulus	ASTM D790	kg/cm <sup>2</sup>	220000
Flexural Strength	ASTM D790	kg/cm <sup>2</sup>	3700
IZOD Impact / Notched (23°C)	ASTM D256	kg-cm/cm	11
<b>THERMAL</b>			
Heat Deflection Temperature (4.6Kg/cm <sup>2</sup> )	ASTM D648	°C	258
Heat Deflection Temperature (18.5Kg/cm <sup>2</sup> )	ASTM D648	°C	250
<b>ELECTRICAL</b>			
Surface Resistivity	ASTM D257	Ω/sq	<10 <sup>3</sup>
<b>PHYSICAL</b>			
Specific Gravity	ASTM D792	-	1.30
Melt Flow Rate (275°C/2.16Kg)	ASTM D1238	g/10min	15

(1) Values shown are based upon specific condition. Variations within normal tolerances are possible for various colors. Actual properties of individual batches will vary within specification limits.

(2) The data of elongation may be very under different molding process. The data shown above is tested by the sample from injection process.

Reported values are only as guidelines for designers and processors of modified thermoplastics. Data are obtained from specimens molded under carefully controlled conditions from representative samples of the compound described herein. Properties may be materially affected by pellet cut, size, color, molding techniques applied, and shape of the item molded. No assurance can be implied that all molded articles will have the same properties as those listed.

The values of specification listed were collected and shown to the best of our knowledge. However, we ask for understanding that we can not take over liability for the results in individual cases and for the suitability and completeness of our recommendations, and can not guarantee that no third-party patent rights are restricted. It is the responsibility of the customer to determine that the product is safe, lawful and technically suitable for the intended use.

T 886.3.483.8475

F 886.3.483.8582

No.45, Jingjian 2nd Rd., Guanyin Dist.,  
Taoyuan City 32853, Taiwan

[www.polyalloy.com.tw](http://www.polyalloy.com.tw)

## Packaging and Drying

Water contain of XuanWu will affect the molding process and the surface quality of end products. The moisture level of each XuanWu resin is controlled under 0.1% (1000 ppm) before packaging. The package types of XuanWu resins are shown in the following table. Special package can supplied upon request. Each package will be attached tag which shows the product grade, the lot number, the net weight. The products will be stacked on pallet. Maximum weight of each pallet is 1,000 kg.

	25	500	750	1,000
Paper bag *1				
Aluminum foil	●			
Bulk bag *2				●
Paper box				

(1) Polyethylene laminated for interior layer.  
(2) Polypropylene woven bag

The drying condition is recommended by 100°C for 2~4 hours. Insufficient drying will cause die drool, rough surface appearance, reduced output, and low mechanical properties. Streaks can be caused by overheating of the material (over 250 °C) or long time remaining in the barrel.

## Storage

Please store XuanWu resins indoor with room temperature. Avoid to be in touched with water, oil or solvent. Some high purity grades of XuanWu must be stored under low dusty environment. The dust of package may cause contamination when it be opened.

Although XuanWu resins are thermoplastic polymer, long term storage is not recommended. The normal storage warranty will be 2 years.

## Product Safety

For the safety properties of the material, we refer to our SDS which can be requested from our sales offices.

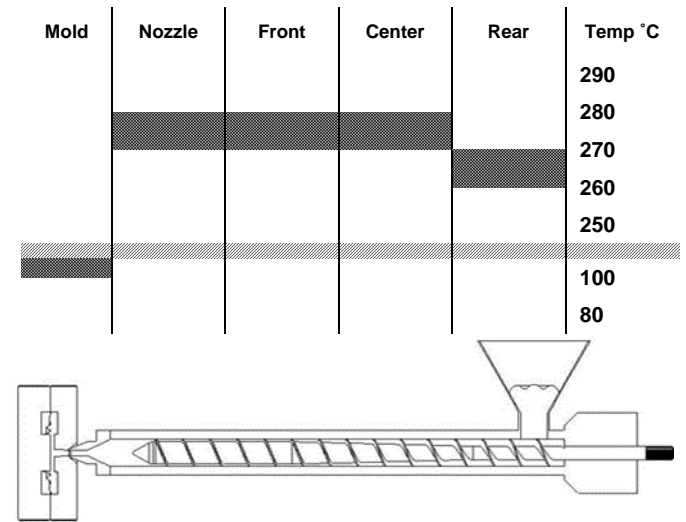
During practical operation we advise to wear personal safety protections for hand, eye, and body.

Caution! Handling or processing the resins may generate a dust which can cause irritation of the eye, skin, nose, and throat.

## Regrind

XuanWu resins are thermoplastic materials. Sprues, runners or side sheets are possible to be reprocessed. The regrinds must be clean, low thermally degraded and well dried. The acceptable level of regrind depends on the application. Be aware that regrind of purify grades is not recommended for original application.

## Molding Condition



The recommendations and data given are based on our experience to date, however, no liability can be assumed in connection with their usage and processing.

## For Additional Information

International representative

[info@polyalloy.com.tw](mailto:info@polyalloy.com.tw)

+ (886) 3483-8475

Customer service

[sales@polyalloy.com.tw](mailto:sales@polyalloy.com.tw)

+ (886) 3483-8475

Reported values are only as guidelines for designers and processors of modified thermoplastics. Data are obtained from specimens molded under carefully controlled conditions from representative samples of the compound described herein. Properties may be materially affected by pellet cut, size, color, molding techniques applied, and shape of the item molded. No assurance can be implied that all molded articles will have the same properties as those listed. The values of specification listed were collected and shown to the best of our knowledge. However, we ask for understanding that we can not take over liability for the results in individual cases and for the suitability and completeness of our recommendations, and can not guarantee that no third-party patent rights are restricted. It is the responsibility of the customer to determine that the product is safe, lawful and technically suitable for the intended use.