



**ICP DAS
BMP**



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Soft Arothane™

ARP Series

Medical Grade Aromatic Polyether-Based
Thermoplastic Polyurethane (TPU)

- ✓ Hardness below 70A without any plasticizer
- ✓ Good physical properties
- ✓ Color-Matched
- ✓ Suitable for injection molding and extrusion

Storage



Soft Arothane™ - Soft ARP TPU pellets should be stored in cool and dry environment in their original containers until used.



Storage temperature should not exceed 85°F/30°C.



If only a portion of TPU pellets was used, the container with the remaining TPU pellets should be tightly closed.



Since aromatic-type TPU is light-sensitive, it may turn yellowish after light exposure but will not necessarily have an adverse impact on the mechanical properties when stored properly.

Products and Properties

Soft Arothane™ - Soft ARP	ASTM Test	ARP-60A	ARP-63A	ARP-67A
Durometer (Shore hardness)	D2240	62A	64A	66A
Specific Gravity	D792	1.08	1.08	1.08
Ultimate Tensile (psi)	D412	2,900	3,100	3,500
Tensile Modulus at 100% Elongation (psi)	D412	340	410	440
Tensile Modulus at 300% Elongation (psi)	D412	590	760	850
Ultimate Elongation (%)	D412	>650	>650	>650
Mold Shrinkage (%)	-	>15%	>15%	>15%

Note: These test results are based on small samples of Soft Arothane™ ARP TPUs and do not represent the results from larger test samples. The manufacturing parameters should be adjusted according to users' actual conditions.

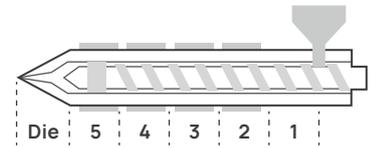
Processing Information

Soft Arothane™ ARP TPU pellets are hygroscopic and therefore should be dried before processing. Depending on the climate, the pellets absorb moisture rapidly when exposed to the atmosphere. The moisture might cause severe degradation of polymers during processing and form bubbles or streaks in the molded and extruded parts. To ensure efficient and successful processing, the moisture content in TPU pellets is recommended to be **less than 0.05% (500 ppm)**. For the moisture content analyzer, please proceed the test with the temperature setting of 145 degrees Celsius for at least 3 minutes.

A dehumidifying dryer is recommended for drying Soft Arothane™ ARP TPU. For the best drying results, the dew point of the inlet air should not be higher than -40°F /-40°C. The recommended drying conditions are listed below **for a minimum of 5 hours**.

Soft Arothane™ - Soft ARP	ARP-60A	ARP-63A	ARP-67A
Recommended Drying Temperature (°F)	175-195	175-195	185-205
Recommended Drying Temperature (°C)	80-90	80-90	85-95

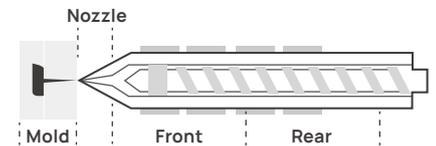
Recommended Extrusion Temperature Profile



Soft Arothane™ - Soft ARP	ARP-60A (°F / °C)	ARP-63A (°F / °C)	ARP-67A (°F / °C)
Zone 1	375/190	375/190	375/190
Zone 2	385/195	385/195	385/195
Zone 3	385/195	385/195	385/195
Zone 4	390/200	390/200	390/200
Adapter 5	390/200	390/200	390/200
Die	385-400/195-205	385-400/195-205	385-400/195-205

Screen Pack Recommendation : 50/200/100

Recommended Injection Molding Temperature Profile



Soft Arothane™ - Soft ARP	ARP-60A (°F / °C)	ARP-63A (°F / °C)	ARP-67A (°F / °C)
Rear	355/180	355/180	355/180
Front	365/185	365/185	365/185
Nozzle	375/190	375/190	375/190
Melt	410-430/210-220	410-430/210-220	410-430/210-220
Mold	60-85/15-30	60-85/15-30	60-85/15-30

Note: Injection molding may have a shrinkage of more than 15% for Soft Arothane™ ARP Series products.

Customized Service : Color-Matching

Color Chart

Unlisted colors can be customized





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✉ E-mail: sales_bmp@icpdas.com

🌐 Website: bmp.icpdas.com

☎ TEL: +886-3-5976699

📠 FAX: +886-3-5971616