

ACME MACHELL



Visit us at www.acmemachell.com

Custom Molded Rubber Products

Phone: 262-521-2870
Fax: 262-521-2894

2000 Airport Road
Waukesha, WI 53187

Founded in 1949, Acme Machell is a specialty rubber molder known for its ability to produce highly engineered products. Acme provides product design, material development, quick turnaround, tooling design and high quality production.

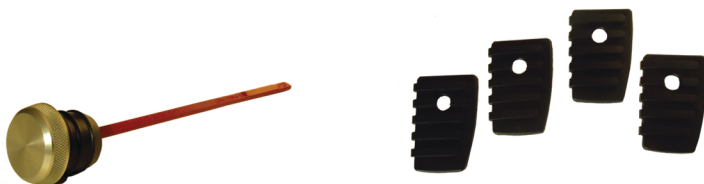
Located in the American Midwest, we have favorable logistics to deliver your products anywhere easily and on-time.

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Waukesha, WI 53187

Phone: 262-521-2870
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For Quotes contact 262-970-6841
For Production contact 262-970-6842
For Quality contact 262-970-6841
For Customer Service contact 262-970-6822

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The Acme Machell Advantage

- Diverse Product Portfolio
- Design and Application Engineering Capabilities
- Industry Leading Material Science Expertise
- Highly Flexible Production Capabilities
- ISO 9001:2008 Certification



Our Technology Advantage

- CAD design capabilities using Solid Edge
- Material Development
- Design for Manufacturing
- Fast Prototypes
- Competitive Tooling Costs



Areas of Expertise:

- Multiple Press Sizes
- Multiple Material Types and Applications
- Custom Assembly Equipment
- Custom Test Fixtures
- Laboratory Testing
- Material Traceability
- Rigorous Cosmetic Standard Processes
- Custom Packaging
- Custom Value Added Operations
- Tooling design-Production and Prototype

Quality Is Our Goal

Acme Machell is ISO 9001:2008 Certified. We use Application Engineering and Quality Assurance to make sure our products are the best quality they can be. Our engineering staff is actively involved in the selling process and works closely with customers' engineering personnel and our quality approval systems ensure that products are defect-free.

At Acme Machell quality is the responsibility of every employee.

Applications:

- Recreational
- Automotive
- Construction
- Lawn & Garden
- Water Treatment
- HVAC
- Personal Protective Equipment
- Paper Industry Industrial
- General Industrial



Acme has multiple presses and varied sizes to meet customer needs. The table below demonstrates the various processes and corresponding sizes:



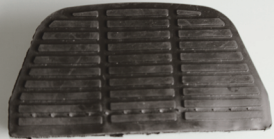





Acme Machell Press Capacity			
Process Type		Size	Number
<u>Comp/Trsfr</u>			
C/T		12"	18
C/T		14"	10
C/T		18"	9
C/T		24"	13
C/T		32"	1
<u>Injection</u>			
Inj	Maplan	16*20	5
Inj	Maplan	20*26	3
Inj	Maplan	26*30	6
Inj	USM/Lewis	24*30	4
Inj	Jing Day	24*25	2
Inj	Desma	26*30	2
Inj	Steinl	27*35	1



COMPARATIVE PHYSICAL PROPERTIES OF RUBBER

Each of these different polymers may be compounded to produce specific physical properties that are engineered to meet your service requirements. Contact our sales department to discuss your product or application. We will be happy to assist you in choosing the most suitable compound to meet your requirements.









TYPE	NATURAL RUBBER	STYRENE BUTADIENE	BUTYL	NITRILE	NEOPRENE	SILICONE	FLUORO-CARBON	HYDRIN	EPDM
ASTM Designation	NR	SBR	IIR	NBR	CR	VMQ	FKM	CO, ECO	EPM, EPDM
PHYSICAL PROPERTIES									
Specific Gravity	0.92-0.93	0.94	0.92	0.98	1.23-1.25	1.1-1.6	1.4-1.95	1.27-1.49	0.86
Thermal Conductivity Btu/ft ² /sq ft/F	0.082	0.143	0.053	0.143	0.11	0.13	0.06-1.3	-	0.15
Coef of Thermal Exp (cubical), 10 ⁻⁵ per F Gum	37	37	32	39	34	45	-	-	32
MECHANICAL PROPERTIES									
Hardness, Durometer	30A-90A	30A-90A	30A-95A	30A-95A	30A-95A	20A-90A	55A-95A	30A-95A	30A-90A
Tensile Strength 1000 psi	3.5-4.5	2.5-3.0	2.0	1.0-3.5	0.5-3.5	1.5	2.0	2-3	0.5-3.5
Modulus (100%),psi	150-3000	300-1500	50-500	100-1500	100-3000	-	200-2000	150-2000	100-3000
Elongation, %	500-700	450-500	300-800	400-600	100-800	100-800	150-450	320-350	100-700
Compression Set, Method B, %	10-30	5-30	25	5-20	20-60	10	20-25	20	20-60
Resilience (ATSM 945) %	80	20-90	30	-	50-80	30-60	40-70	50-80	40-75
Rebound (Bashore)	-	10-60	-	-	50-80	-	40-70	50-80	40-75
Hysteresis Resistance	Excellent	Fair-Good	-	-	Very Good	Fair-Good	Good	Good	Good
Flex Cracking Resistance	Excellent	Good	-	Fair-Good	Very Good	Fair-Excel.	Good	Very Good	Very Good
Tear Resistance	Excellent	Fair	Good	Good	Good	Fair	Fair-Very Good	Very Good	Fair-Good
Abrasion Resistance	Excellent	Excellent	Good	Excellent	Excellent	Poor	Good	Fair-Good	Good-Excel.
Impact Resistance	Excellent	Excellent	Good	Good	Excellent	Poor-Good	Good	Good	Very Good
ELECTRICAL PROPERTIES									
Volume Resistivity ohm-cm	-	5.0-8.4 X 10 ⁸	2.0 X 10 ¹⁶	3.5 X 10 ¹⁰	2.0 X 10 ¹³	1 X 10 ¹⁴ -1 X 10 ¹⁶	2 X 10 ¹³	-	2 X 10 ¹⁶ -1 X 10 ¹⁷
Dielectric Strength, v/mil	400-600	600-800	600-900	250	400-600	400-700	500	-	500-1000
THERMAL PROPERTIES									
Service Temperature, F									
Min for Continuous Use	-70	-65	-50	-65	-60	-178	-40	-50	-70
Max for Continuous Use	250	225	300	250	225	600	550	275	350
Heat Aging at 212F	B-C	B	A	B	B-A	A	A	B-A	B-A
ENVIRONMENTAL RESISTANCE									
Ozone	Poor	Poor	Excellent	Poor	Very Good	Excellent	Outstanding	Excellent	Outstanding
Oxidation	Good	Good	Excellent	Fair-Good	Very Good	Excellent	Outstanding	Excellent	Excellent
Weathering	Fair	Fair	Excellent	Good	Very Good	Excellent	Excellent	Excellent	Outstanding
Water	Excellent	Excellent	Excellent	Excellent	Good	Excellent	Good	Good	Excellent
Radiation	Fair-Good	Good	Poor	Fair-Good	Good	Fair-Good	Fair-Good	Poor	Good


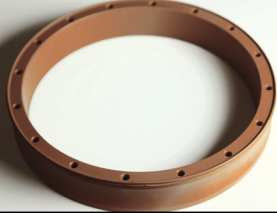

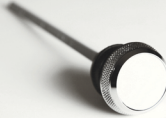




Type Of Process	Application	Product
Injection Molded Products	General Industrial	
Compression and Transfer Molded Products	Recreational	
Injection Molded Products	Recreational	
Injection Molded and Value-Added Assembly	Recreational	
Injection Molded Products	Recreational	
Compression and Transfer Molded Products	General Industrial	
Injection Molded Products	Recreational	
Injection Molded Products	Recreational	



Type Of Process	Application	Product
Injection Molded Products	Recreational	
Compression and Transfer Molded Products	General Industrial	
Injection Molded Products	Recreational	
Compression and Transfer Molded Products	Automotive	
Injection Molded Products	Recreational	
Compression and Transfer Molded Products	Recreational	
Injection Molded Products	Recreational	
Injection Molded Products	Recreational	



Type Of Process	Application	Product
Injection Molded Products	Recreational	
Injection Molded Products	Recreational	
Injection Molded Products	Recreational	
Compression and Transfer Molded Products	Recreational	
Compression and Transfer Molded Products	Lawn and Garden	
Die Cut	Water Treatment	
Compression and Transfer Molded Products	Recreational	
Compression and Transfer Molded Products	Recreational	

Type Of Process	Application	Product
Injection Molded Products	Recreational	
Compression and Transfer Molded Products	General Industrial	
Compression and Transfer Molded Products	Automotive	
Value-Added Assembly	Recreational	
Injection Molded Products	Automotive	
Compression and Transfer Molded Products	Personal Protective Equipment	
Compression and Transfer Molded Products	Recreational	
Value-Added Assembly	Recreational	

Type Of Process	Application	Product
Compression and Transfer Molded Products	Recreational	
Injection Molded Products	Recreational	
Compression and Transfer Molded Products	Recreational	
Injection Molded Products	Recreational	
Injection Molded Products	Recreational	
Injection Molded Products	Recreational/ Steel Insert Overmold	