



# All-State is about solutions

## Changing your preconceptions

Urethanes are known for high-performance in demanding applications. Urethanes have other unique characteristics that make them a good alternative to rubber, plastic or metal components in many non-traditional urethane applications as well. Affordability, flexibility AND performance!

## Unlimited possibilities

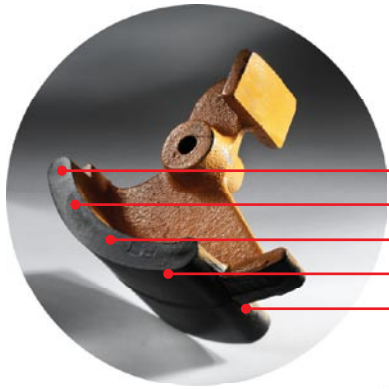
Molded urethanes have a wide hardness range, many color choices and an infinite variety of designs and shapes from simple to complex. All-State will work with you to develop your concept. From high-volume production to prototypes, no job is too big or too small.

## Delivering on its promise

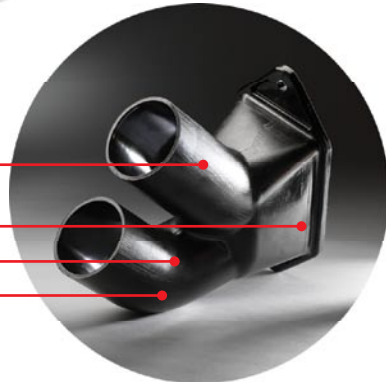
All-State works hard to fulfill its promise: Quality products, custom solutions and outstanding service.

**all-state**  
**INDUSTRIES, inc.**

[www.all-stateind.com](http://www.all-stateind.com)



- advanced compounds
- high co-efficient of friction
- improved part life
- high abrasion resistance
- urethane to metal bonding



- injection-molded appearance
- plastic-like hardness
- affordable tooling
- custom, complex engineered design

# All-State is your Urethane solution

## All-State Industries provides

- Assistance with design and material selection
- Special compound formulations
- Wide range of weight and size capability
- Samples, prototypes, short runs and long runs
- Quality assurance
- Service after the sale

## Unlimited potential

Urethane is a high-performance engineered elastomer. It offers superior characteristics for high demand applications. Urethane is known for its excellent properties of abrasion resistance, cut and tear strength, load bearing, shock absorption, and chemical and environmental resistance.

In addition to being a top choice in demanding applications, urethane has other characteristics that make it a viable option in a variety of non-traditional applications. It is available in a wide range of hardnesses from very soft like a rubber band to very hard like a bowling ball, and in several different colors. Because All-State molds the parts in-house, simple to complex designs can be accommodated. Urethane can be directly molded to many different materials including steel, aluminum and plastic to enhance performance characteristics.

	Shore A hardness	Shore D hardness	Tensile	Die C tear strength	Ultimate elongation	100% modulus	300% modulus	Compression set	Compression deflection, 20%	Tabor Abrasion	NBS Abrasion
units	—	—	psi	pli	%	psi	psi	%	psi	mg loss	index
<b>UC50</b>	50	—	1,430	52	760	260	520	35	—	—	—
<b>UD65</b>	65	—	6,200	344	525	300	700	40	260	4	120
<b>UM70</b>	70	—	6,500	398	567	548	1,175	25	360	—	—
<b>UB83</b>	83	—	6,700	500	550	650	1,600	35	640	10	250
<b>UF90</b>	90	—	4,779	429	537	1,000	1,769	18	540	16	300
<b>UG91</b>	91	40	4,200	460	400	1,150	2,625	61	—	—	55
<b>UE93</b>	93	45	5,955	495	438	1,238	2,560	13	1,000	0.69	—
<b>UA50D</b>	95	50	7,300	770	460	2,100	4,100	33	1,450	—	—
<b>UH60D</b>		60	5,600	470	230	2,800	4,700	38	1,800	—	—
<b>UN73D</b>		73	7,500	1,100	230	5,000	6,400	8	6,200	—	—

## Custom solutions

All-State engineers elastomers with your component part in mind. Using a wide variety of compounds and extensive engineering experience, a custom formula can be created to solve your specific need. All-State can assist you with design, prototype and testing.

## Mold Technologies

All-State can take existing or rapid prototype parts and produce a low cost negative cavity mold for a new prototype or for material evaluation purposes. Production molds are CNC machined from aluminum billets using the parts three-dimensional CAD model.

## A non-metallic pioneer with outstanding service

We have been a pioneer in the non-metallic custom products arena since 1959. Founded on the highest quality products and outstanding service, All-State has continued to excel at die cutting, molding, extruding and customizing products for their customers.

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Visit our Web site at [www.all-stateind.com](http://www.all-stateind.com)

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