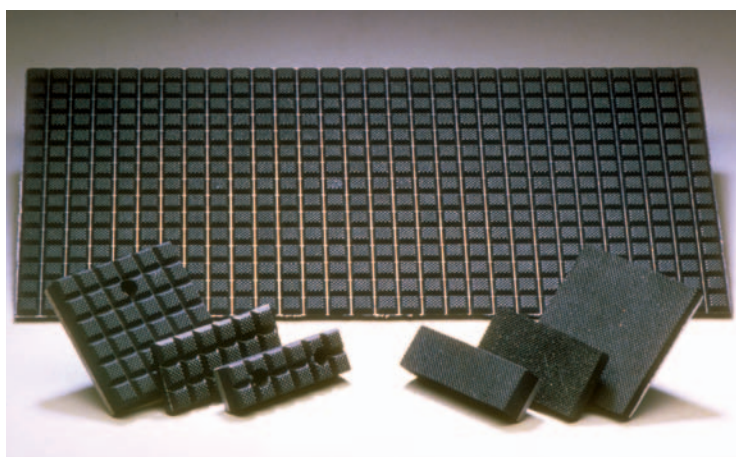


CUSTOM FIT PFA COMPLIANT GRIPPER PADS TO YOUR PRECISE NEEDS

GRIPPER PADS



Durable, non-slip elastomer gripper pads for industrial robots provide an efficient means of grasping work pieces. Elastomers are selected to operate over a broad temperature range and resist oils, other liquids, and corrosive elements. The elastomer is adhered to a metal plate for ease of attachment to a gripper. The pad is easily machined to match custom applications, and holes may be drilled to provide quick attachment and removal. Gripper pads are also available without metal backplates for specialized applications.

Features

- Compliant surface
- Resistance to specific types of harsh industrial environments
- Easy installation/replacement
- Adaptable to custom applications

Specifications

- Operating temperature: -20°F (-29°C) to +180°F (+82°C)

Materials

- Plate: 6061-T6 Aluminum/low carbon steel as indicated above
- Elastomer: 60 ±5 Duro, Shore A

Weight PER SQUARE INCH

Part Number	Weight (oz./in.2)
GP701-1	.76
GP703-1	.18
GP705-1	.13
GP702-1A	.82
GP704-1A	.22
GP706-1A	.17
GP706-2A	.07
GP801-1	.82
GP803-1	.22
GP805-1	.17
GP805-2	.07

**To Order Specify
Part No. and Quantity.
Example: Qty. 2 GP-702-1A**

GRIPPER PAD COEFFICIENT OF FRICTION

The coefficient of friction for an application in which steel fingers grip a steel part is estimated as .28. Gripper pads provide additional friction for those applications in which grip force and finger friction are not sufficient to grasp the part. The coefficient of friction for two sample part materials was calculated for the three gripper pads types in the chart listed here.

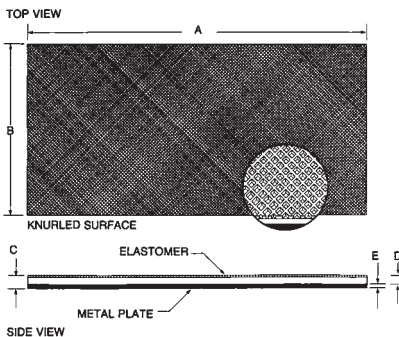
The coefficients of friction determined in the chart are application dependent. The test results were generated under ideal laboratory conditions. Actual performance may differ. In this test situation a metal sheet with a 63 microinch ground finish

Finger Material	Coefficient of Part Material	
	Steel	Aluminum
Steel Fingers	.28	.32
Knurled Pad	.53	.78
Waffled Pad	.48	.87
Pebbled Pad	.52	.76

was placed between two 72 square inch gripper pads and a compressive load of 200 lbs was applied perpendicular to the contact area. All surfaces were clean and dry. In other situations the coefficient may be lower due to lubricants introduced into the system; or much higher if the rubber is able to conform to the part.

The coefficient of friction is used in conjunction with tooling weight and robot acceleration to calculate the required grip force for a specific application. The following formula can be applied when attempting to determine the approximate minimum grip force for an application. Note: An additional safety factor of 10X may be required depending upon the application.

$$\text{Grip Force (lbs)} = \frac{\text{The weight of the tooling (lbs)}}{\text{The coefficient of friction}}$$

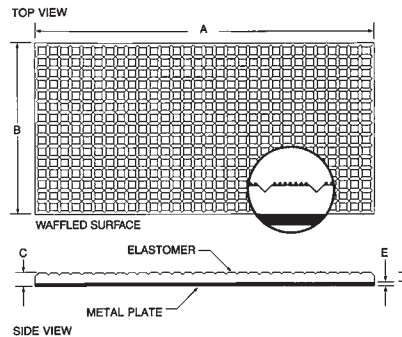


DIMENSIONS mm (inches)

P/N	A**	B**	C	D	E	Notes
GP-702-1A	304.8 (12.0)	152.4 (6.0)	13.5 (0.53)	10.2 (0.40)	3.3 (0.13)	w/Steel backplate
GP-704-1A	304.8 (12.0)	152.4 (6.0)	6.4 (0.25)	4.8 (0.19)	1.5 (0.06)	w/Alum. backplate
GP-706-1A	304.8 (12.0)	152.4 (6.0)	n/a	6.4 (0.25)	n/a	Elastomer pads only**
GP-706-2A	304.8 (12.0)	152.4 (6.0)	n/a	3.3 (0.13)	n/a	Elastomer pads only**

*No metal plate

**Elastomer only pads may show some dimensional contraction. Use A=11 1/8" and B=5 3/4" actual for planning

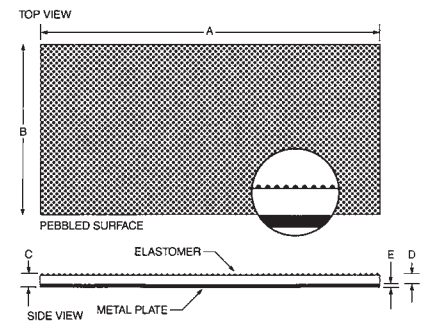


DIMENSIONS mm (inches)

P/N	A**	B**	C	D	E	Notes
GP-701-1	304.8 (12.0)	152.4 (6.0)	12.7 (0.50)	9.4 (0.37)	3.3 (0.13)	w/Steel backplate
GP-703-1	304.8 (12.0)	152.4 (6.0)	6.4 (0.25)	4.8 (0.19)	1.5 (0.06)	w/Alum. backplate
GP-705-1	304.8 (12.0)	152.4 (6.0)	n/a	6.4 (0.25)	n/a	Elastomer pads only**

*No metal plate

**Elastomer only pads may show some dimensional contraction. Use A=11 1/8" and B=5 3/4" actual for planning



DIMENSIONS mm (inches)

P/N	A**	B**	C	D	E	Notes
GP-801-1	304.8 (12.0)	152.4 (6.0)	13.5 (0.53)	10.2 (0.40)	3.3 (0.13)	w/Steel backplate
GP-803-1	304.8 (12.0)	152.4 (6.0)	6.4 (0.25)	4.8 (0.19)	1.5 (0.06)	w/Alum. backplate
GP-805-1	304.8 (12.0)	152.4 (6.0)	n/a	6.4 (0.25)	n/a	Elastomer pads only**
GP-805-2	304.8 (12.0)	152.4 (6.0)	n/a	3.3 (0.13)	n/a	Elastomer pads only**

*No metal plate

**Elastomer only pads may show some dimensional contraction. Use A=11 1/8" and B=5 3/4" actual for planning