Introduction
Indium Corporation's CuGa Alloy Sputtering Targets offer tight control of the final thin-film composition. This is due to our unique manufacturing process that results in a fine-grain monolithic material. Impurity levels are controlled before and during the manufacturing process.

CIS/CIGS
CuGa Alloy Sputtering Targets are commonly used with pure indium sputtering targets or indium evaporation forms to co-deposit copper, indium, and gallium in combination with sulfur/selenium to form the active layer on CIS/CIGS thin-film solar cells.

Custom Solutions for High Throughput
CuGa Alloy Sputtering Targets are available in custom shapes, sizes, and purities to suit your unique needs. Targets are available for the smallest prototyping chambers or full-scale roll-to-roll equipment. In addition, cylindrical, rotatable sputtering targets increase material utilization and system throughput while reducing the total cost of ownership. The cylindrical, rotatable shape offers greater than 70% material utilization with less system downtime and high system throughput.

Superior Quality
- Capability to analyze and control impurities to the part per billion levels.
- Tightly controlled Fe, Ni, Zn, Cd, and Hg enable higher solar conversion efficiency.
  - Hg=10 ppm max*
  - Fe=25 ppm max*
  - Ni=25 ppm max*
  - Zn=25 ppm max*
- The targets are securely packed to avoid contamination and damage during shipment. Custom packaging is available on request.
  * Typical values. Higher purities are available upon request.
Standard Shapes and Sizes

Rotatable Cylindrical:
Length: 304.8 – 3200mm (12 – 126 inches)
Diameter: 76.2 – 152.4mm (3 – 6 inches)
Thickness: 3.175 – 12.7mm (0.125 – 0.5 inches)

Round Planar:
Diameter: 50.38 – 381mm (2 – 15 inches)
Thickness: 15mm (0.591 inches)

Rectangular Planar:
Length: up to 1700mm (67 inches)
Width: up to 381mm (15 inches)
Thickness: up to 12.7mm (0.5 inches)

Custom shapes and sizes available on request.

Technical and Customer Support
Indium Corporation sets the industry standard in providing online and onsite technical support to our customers worldwide. Our team of research scientists, application engineers, and technical support engineers work closely with customers to develop custom solutions to their technical problems and increase their productivity.

Material Safety Data Sheet
The MSDS for this product can be found online at http://www.indium.com/techlibrary/msds.php

This product data sheet is provided for general information only. It is not intended, and shall not be construed, to warrant or guarantee the performance of the products described which are sold subject exclusively to written warranties and limitations thereon included in product packaging and invoices.

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