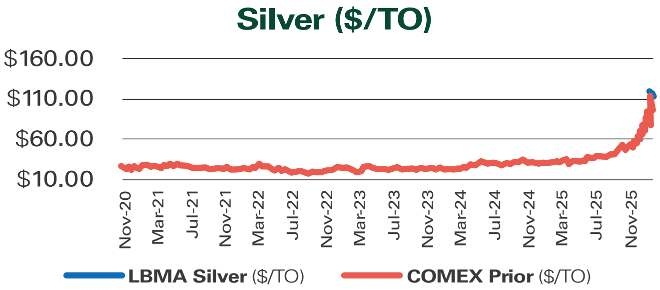
# Stop Paying for Silver YOU DON'T NEED

**With silver prices rising sharply, NOW is an ideal time to evaluate alternatives to the industry-standard SAC305 alloy. Many assemblies do not require SAC305's level of thermal cycling performance, creating opportunities to reduce cost with lower-silver options such as SAC105, SAC0307, or INDALLOY®291. For applications that still demand equal or better thermal cycling reliability as SAC305, INDALLOY®302 delivers strong performance while helping control material costs. If you have high-volume, cost-sensitive products, let's work together to identify opportunities for meaningful savings without compromising performance.**

## How much has silver increased in price and how has this impacted the cost of the SAC305 alloy?



In 2020, the average silver price was about $20/troy ounce. In 2025, the average silver price was about $40/troy ounce. In January 2026, the silver price averaged about $92/troy ounce. The increase in the silver price from $20/troy ounce to $92/troy ounce has the impact of increasing the SAC305 (3% silver) alloy price by $69/kg. This dramatic increase in cost is driving some PCB assemblers to explore their low-silver options.

**What is the magnitude of savings possible by using a low-silver solder paste as a replacement for SAC305?** The savings potential is very dependent on the prevailing price of silver and the low-silver alloy selected. If we assume the average price of silver in January 2026 ($92/troy ounce) and assume that solder paste is 90% metal by weight, the following cost savings are possible as compared to **SAC305:**

- ✓ **INDALLOY®291: $60+/kg**
- ✓ **SAC105: $40+/kg**
- ✓ **SAC0307: $55+/kg**
- ✓ **INDALLOY®302: $15+/kg**

## Are all low-silver alloys an appropriate option for all electronics applications?

## ABSOLUTELY NOT!!!

The selection of best-fit low-silver alloy with the appropriate application requires insight from a technical professional with deep insight into the application requirements. Any application requiring stringent thermal cycling performance is not an appropriate choice for most low-silver alloys. Applications with demanding thermal cycling resistance should utilize **SAC305**, **INDALLOY®302**, or a high-reliability alloy like **Durafuse® HR.**

***Contact us today to reduce your soldering costs without sacrificing quality.***

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**From One Engineer To Another®**

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## Which applications offer suitable candidates to be considered for a low-silver alloy?

**Low-silver alloys have proven to be most successful in high-volume, cost-sensitive applications with moderate thermal cycling requirements and controlled operating environments, such as:**

- **If the application requires the thermal cycling reliability of SAC305, exploring INDALLOY®302 is your best-fit solution to explore.**
- White Goods & Appliances: washing machines, refrigerators, ovens, dishwashers, HVAC controls
- Industrial Controls & Power Electronics: motor drives, automation controls, AC/DC power supplies
- LED Lighting & Stationary Consumer Electronics: commercial lighting, TVs, networking equipment
- Consumer Electronics (Non-Portable): TVs, set-top boxes

## Which alloys should be considered? Indium Corporation offers the following alloys for your consideration:

### ✓ SAC105

Offered in bar solder, cored wire, and solder paste (with **INDIUM12.9HF** flux system) – This option contains 1% silver. The inclusion of 1% silver strikes an excellent balance between cost efficiency and significantly enhanced thermal cycling performance compared to **SAC0307** and **INDALLOY®291**.

### ✓ SAC0307

Offered in bar solder, cored wire, and solder paste (with **INDIUM12.9HF** flux system) – This option contains 0.3% silver, a highly cost-effective choice. **SAC0307** is likely the most widely used low-silver alternative.

### ✓ INDALLOY®291

Offered in bar solder, cored wire, and solder paste (with **INDIUM12.9HF** flux system) – This option contains 0.0% silver, providing maximum cost savings. Its composition is identical to the previously patented SN100C® alloy.

### ✓ SN995

Offered in bar solder, this option contains 0.0% silver, delivering maximum cost savings. It also offers the added advantages of reduced dross generation, lower copper dissolution rates for easier pot maintenance, and smoother, shinier solder joints for enhanced quality.

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