

Stop Paying for Silver YOU DON'T NEED



With silver prices soaring, NOW may be a great time to explore replacement of the industry standard SAC305 alloy with a low-silver option for selected applications. Many applications don't need the thermal cycling reliability of SAC305. If you have high-volume applications that are cost-sensitive products and do NOT have critical thermal cycling requirements, let's work together to see if we can significantly improve your cost competitiveness.

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 SAVED** ✓ **SAC0307: \$55/kg SAVED** ✓ **SAC105: \$45/kg SAVED**

The savings is higher with bar solder and cored wire because these products are close to 100% metal.

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

ABSOLUTELY NOT!!!

The selection of best-fit applications for low-silver alloys 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 low-silver alloys. Applications with demanding thermal cycling resistance should utilize SAC305 or a high-reliability alloy like Durafuse® HR.

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



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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:

- 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
- LED Lighting: commercial lighting, industrial lighting, LED drives

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, making it slightly more expensive. However, 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, making it the most 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

Available in bar solder, this option contains 0.0% silver, delivering maximum cost savings. It also offers the added advantages of:

- Reduced dross generation versus **SAC305** and **INDALLOY®291**
- Much slower copper dissolution rates versus **SAC305**
- Simpler pot management with no need for a special replenisher alloy.
- Smoother, shinier solder joints for enhanced quality



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