

4000 Series Aluminium Scrap

Neutral Technical Reference | Scrap Classification & Commercial Sorting

Prepared as an initial reference for CELEBIOGLU TRADE website use. No producer or recycler brand is represented.

Series overview

Silicon-bearing aluminium family used where fluidity, wear behaviour or welding characteristics are important.

Topic	Reference
Alloying emphasis	Silicon is the principal alloying element.
Typical applications	Automotive parts, brazing sheet, welding wire/rod and silicon-rich cast or wrought applications.
Typical scrap sources	Brazing-sheet scrap, welding consumables, machining/fabrication scrap and identified silicon-rich returns.

Sorting and segregation guidance

High-silicon scrap should be kept separate from 5xxx/6xxx wrought streams because silicon shifts remelt chemistry quickly.

Commercial acceptance points

- A chemistry check is particularly useful where mixed casting and wrought scrap could be present.
- Agree form before shipment: loose, baled, bundled, shredded, turnings/chips, profile offcuts or production returns.
- Define maximum non-aluminium attachments and foreign material such as steel, plastics, rubber, glass, oil, dirt and moisture.
- For chips/turnings, specify dryness, oil content, particle size and packaging because these directly affect recovery and safety.
- Use photos, representative samples, PMI/XRF where appropriate, and a written acceptance specification before commercial commitment.

Safety and logistics

- Keep scrap dry, especially before remelting. Moisture can create a severe explosion hazard when charged into molten aluminium.
- Sharp edges, unstable bundles and heavy packages require suitable handling equipment and PPE.
- Fine chips and dust require additional housekeeping and fire-risk controls.

This document is a neutral commercial/technical reference for scrap classification. It is not a purchase specification, inspection certificate, SDS, waste classification, customs ruling or legal acceptance standard. Final acceptance criteria must be agreed with the buyer and supplying party.