

Foilstock



Bridgnorth Aluminium Ltd - Star Litho

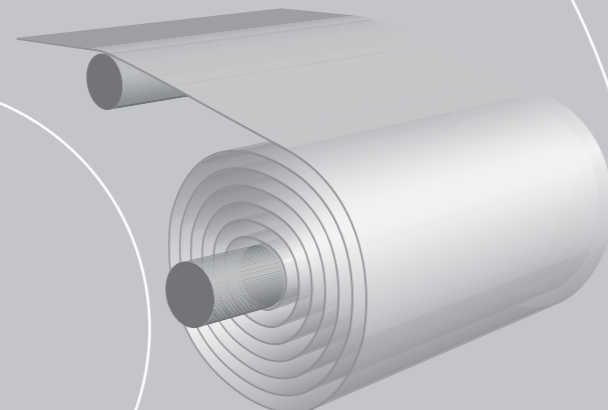
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Soft alloy foilstock



| Material | Chemical Composition | | | | | | | |
|----------|----------------------|------|------|------|------|-------|------|------------|
| | Element (% weight) | | | | | | | |
| Alloy | Fe | Si | Cu | Mn | Ti | Mg | V | Other each |
| AA1200 | 0.50 | 0.12 | 0.03 | 0.03 | 0.05 | 0.003 | 0.05 | 0.02 |
| | to | to | Max | Max | Max | Max | Max | Max |
| | 0.62 | 0.18 | | | | | | |
| AA8079 | 0.70 | 0.14 | 0.05 | 0.02 | 0.05 | 0.003 | 0.10 | 0.02 |
| | to | Max | Max | Max | Max | Max | Max | Max |
| | 1.30 | | | | | | | |
| AA8011 | 0.85 | 0.50 | 0.10 | 0.10 | 0.08 | 0.005 | 0.10 | 0.05 |
| | to | to | Max | Max | Max | Max | Max | Max |
| | 1.00 | 0.70 | | | | | | |
| AA3003 | 0.40 | 0.50 | 0.10 | 0.95 | 0.05 | 0.30 | 0.20 | 0.05 |
| | to | Max | Max | to | Max | Max | Max | Max |
| | 0.70 | | | 1.20 | | | | |

| Material | Chemical Composition | | | | | | | |
|----------|----------------------|------|------|------|------|------|------|------------|
| | Element (% weight) | | | | | | | |
| Alloy | Fe | Si | Cu | Mn | Ti | Mg | V | Other each |
| AA8006 | 1.3 | 0.20 | 0.1 | 0.30 | 0.05 | 0.10 | 0.10 | 0.02 |
| | to | Max | Max | to | Max | Max | Max | Max |
| | 0.62 | | | 1.00 | | | | |
| AA8008 | 1.00 | 0.40 | 0.21 | 0.50 | 0.05 | 0.02 | 0.10 | 0.05 |
| | to | Max | Max | to | Max | Max | Max | Max |
| | 0.62 | | | 1.00 | | | | |
| AA8021A | 1.20 | 0.20 | 0.05 | 0.03 | 0.05 | 0.02 | 0.05 | 0.02 |
| | to | Max | Max | Max | Max | Max | Max | Max |
| | 1.70 | | | | | | | |

All Alloys above to have maximum 100ppm for the total of Pb, Cd, Hg Hexavalent Cr.

All Rolling Ingot will be supplied from an approved casthouse.

Over 50 years' expertise

We have a special understanding and knowledge of the foil market having developed alloys and rolling practices over a period of more than 50 years since the establishment of rolling assets in Bridgnorth. For many years prior to the 1990s foil was our primary activity and what is now known as Bridgnorth Aluminium Ltd supplied foilstock to down-stream foil rolling and converting plants on the same site.

Since 2001, as an independent producer of foilstock, we have developed long term partnerships with major European foil rolling customers by offering the benefits of our experience and expertise.

We understand what it takes to make reliable, high quality foil at thin gauges, meeting demanding low levels of porosity whilst maintaining the correct strength characteristics.

We have dedicated foilstock cold rolling, annealing and finishing assets designed to provide the levels of cleanliness, flatness and overall product quality required by the market. We supply full ingot sized coils to satisfy the productivity requirements of modern foil rolling plants.

Your packaging needs in our hands

We are a fully integrated producer of flat rolled aluminium strip with all processes on one site under one management team.

We have a totally focussed production facility and with expertise through the supply chain from casting of rolling ingot through to the hot and cold rolling processes, including heat treatment.

Through our R&D network, both in-house and at our Group laboratories in Athens as well as external parties, and through our technology partnership with Furukawa Sky Aluminium we are investing in product and process improvements.

Over the last decade we have continually invested in equipment and upgrades to our processes, all designed to ensure we meet the fast evolving demands of the market.

Our vision is to be in a position of trust and to be the supplier of choice when it comes to solving your packaging feedstock requirements.

Surface critical soft alloy foilstock specialist

Our process is designed specifically with final foil rolling and customer application in mind.

Our quality starts with casting both in our own casthouse and at external smelters, where we have developed clean routes over many years, to support the most demanding foil applications. Rolling ingot at 620mm thickness is produced for hot rolling down to below 3mm in a single production line. The configuration of the process with cold quench of the hot plate and cold finishing results in special mechanical properties ideal for certain final foil products, such as blister pack.

At all stages we take great care to keep the material clean and free from surface blemishes. From the moment the raw material enters our process the surface is protected based on our expertise in meeting the exceptional quality requirements of lithographic quality coils.

The coil is then rolled to final gauge on our foilstock cold mill, a dedicated mill for foilstock, prior to being trimmed to the final product width on our finishing line. We have dedicated foilstock annealing furnaces in the event that your product requirements require an inter-annealing step.

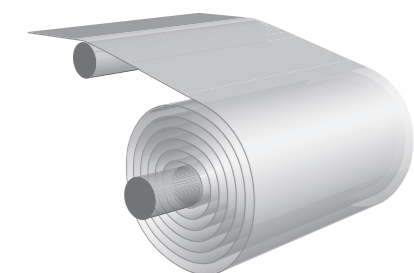
Our entire management process is controlled and assured to ISO 9001:2000 standards and our environmental and safety management systems comply with ISO 14001:2004 and OHSAS 18001:2007 standards.

| Dimension Options | | Tolerances | |
|-------------------|----------------|----------------|----------------|
| Measure (mm) | Standard Range | Range (mm) | Tolerance (mm) |
| Thickness | 0.35 to 1.00 | 0.35 to 1.00 | ± 5% nominal |
| Width | 800 to 1560 | 800 to 1000 | + 1 mm – Nil |
| | | > 1000 to 1250 | + 1 mm – Nil |
| | | > 1250 to 1560 | + 1 mm – Nil |

| Dimension Options | |
|---|-------------------------------|
| Coil Weight | 5.6 to 6.0 kg per mm of width |
| Outer diameter mm | 1800mm max |
| Inner diameter mm | 406 mm, 507 mm, 600 mm |
| Coils can be supplied either full weight as above or cut to half coils on request | |

| Surface roughness and presentation | |
|------------------------------------|--|
| Mill Finish | Maximum surface roughness of Ra = 0.2 to 0.6 microns |

| Minimum order quantity |
|--|
| The minimum order quantity for commercial orders is the product of 2 master coils. |
| Trial quantities can be supplied by special agreement. |



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