

Can Process Scrap Specification

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NONE

1.0 PURPOSE:

Novelis is a supplier to discerning customers of a wide variety of rolled aluminum products. Novelis' visibility in these markets depends on its' ability to consistently supply aluminum of the highest quality. A major impact on our ability to meet this requirement is the raw material we purchase for our processes. A key raw material in our can sheet production is class scrap.

The major purpose being to communicate as clearly as possible, the Novelis requirements for can process scrap. The philosophy of Novelis is to work with all of its suppliers to enable them to continuously improve the quality of materials delivered.

2.0 RESPONSIBILITIES AND AUTHORITY:

All Novelis supplier origins.

3.0 GENERAL SCRAP SPECIFICATIONS:

All returned beverage can process scrap shall be clean, dry, segregated, identified by scrap classification, and free of all contamination (e.g. plastic, dirt, steel, etc.). Material must be stored indoors and free of moisture. Two or more classes cannot be mixed in one package. Loose scrap is not acceptable. Return of two separate scrap classifications on the same load is subject to inquiry prior to shipment.

4.0 DEFINITIONS:

- a) **Class I** scrap shall consist of 3104/3004 alloys used in the production of can bodies. Returned scrap cannot be lacquered, painted, coated or in any way contaminated with gaskets, sealants, oils, etc. Residual lubricant levels of up to 1.5% by weight is acceptable. Other oils or lubricants are not acceptable (e.g. hydraulic oil).
- b) **Class II** scrap shall consist of new production 5182 alloy used in the production of can end and tab stock. Lid and tab stock may be mixed, but the preference is for segregation. Only normal lacquer coating is acceptable. **5042 is not accepted at Novelis as Class II.**
- c) **Class III** scrap shall consist of new production 3104/3004 series alloys painted and decorated and free of all other contamination applicable to Class I.
- d) **Class IV** scrap shall consist of new production 5182 series alloy spoiled compounded ends.
- e) **Heads & Tails** - Only two pallets of heads & tails are allowed to be shipped in a full truck of can process scrap. Novelis does not take full loads of heads & tails, because we are unable to store this material in truckload quantities in a safe manner at our plants.

5.0 Can Process Scrap Specifications:

Briquettes

- a) Class I and Class II – Minimum density of 50 lbs. per cubic foot.
- b) Class III – Minimum density 35 lbs. per cubic foot; maximum density 45 lbs. per cubic foot.
- c) The minimum dimension for briquettes is 12.5" X 8" X 6" and the maximum dimension is 12.5" X 12.5" X 9".
- d) No stretch wrap, plastic wrap, cardboard or covering dunnage is permitted.
- e) Recommended strapping is 5/8" x .035 embossed polyester plastic strapping. All straps must be a minimum of 5/8" wide by .02 thick. A 6 lb. per bundle deduction will be taken for steel banding.
- f) Material must be banded securely and stackable.
- g) The maximum metal stack height is 56" (including pallet). Briquettes must have consistent height and width dimensions. The maximum bundle width allowed is 58". The maximum bundle weight is 6,000 lbs. (including pallet).

Bales

- h) Class III only can be shipped in bales.
 - 5.h.1 Bales may not be palletized
 - 5.h.2 Bales of class III (see figure 1) must be a least 30 cubic feet with dimensions in inches in the following ranges: 24" to 41" x 30" to 52" x 41" to 72".

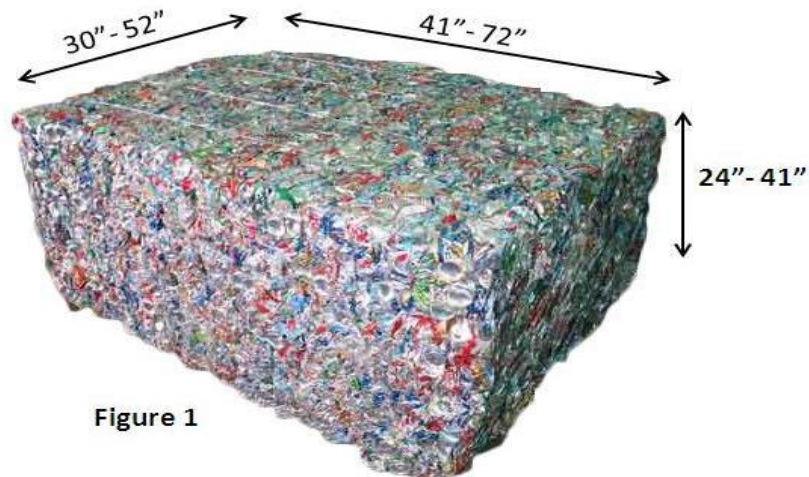


Figure 1

Without Pallets:

Novelis and some of its suppliers have adapted a pallet-less scrap package that utilizes a jig to provide a framework for building a bundle of briquettes. With the correct configuration and the use of plastic strapping, the bundle can safely be moved without use of a pallet. This eliminates the expense and management of pallets for the supplier and the cost of disposal and handling of pallets for Novelis.

See section 9.0 for the configuration and notify your Novelis Technical Representative or Novelis Can Stock Representative for more information.

With Pallets:

- Briquetted class scrap on pallets must be securely strapped with two straps parallel to runners and under deckboards, two straps perpendicular to runners and under deck boards, and one horizontal strap per layer—see banding specification above.
- Briquettes must not overhang the skid by more than 1" and must have consistent height and width dimensions.
- Skids must be without protrusions or extensions on width and length, and free of padding on the skid.

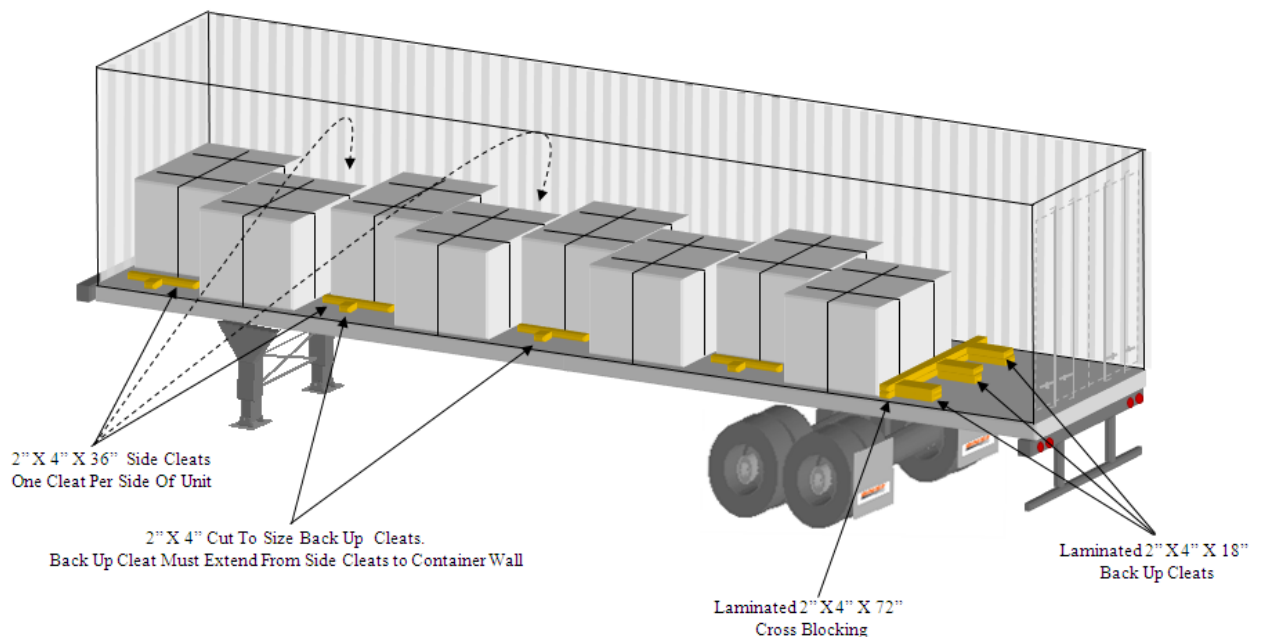
6.0 Sheet, Coil Scrap and Aluminum Cores:

- a) Material should be bundled together using a solid flat sheet for the base of the bundle or a skid.
- b) The minimum weight per bundle is 1,500 lbs. The maximum weight per bundle is 3,000 lbs.
- c) Must be secured with not less than four 3/4" by .025" steel or fiber straps banded two ways.
- d) Sheet scrap on pallets must not be double stacked and banded as one bundle. Only one pallet per bundle is acceptable. The preferable method is to strap material together as a single unit before banding the unit to the pallet. The maximum number of sheet scrap bundles per load is limited to three.
- e) All coil returns are subject to prior approval by the Novelis Technical Representative or Can stock Account Manager and must either have no core or an aluminum core.
- f) Fiber cores are not permitted.

7.0 Truck Loading Procedure:

- a) All scrap shipped by truck must be loaded in standard dry vans with barn doors. A flatbed with fixed, rigid sides can be used, provided it is rear loaded, secured and tarped. A flatbed with removable sides can also be used provided it is side loaded secured and tarped.
- b) The shipper is responsible for inspecting all trailers. The trailer must be clean, in good shape, and free of holes.
- c) Truckloads must be a minimum of 40,000 lbs. Truck shipments less than 40,000 lbs. are subject to inquiry.
- d) The maximum allowable weight in any container is 43,500 lbs.
- e) When loading a container and the tractor is a 'day cab' (no sleeper compartment), maximum allowable weights per axle are 11,000lbs – 32,000lbs – 33,500lbs. This will ensure the legal weights are correct at destination.
- f) If the tractor has a sleeping compartment then the axle weights can be maximized at 12,000 lbs. – 34,000 lbs. and 34,000 lbs.
- g) Novelis requires drivers to scale their equipment after loading. On occasion, drivers may return to the loading facility to have some or part of their load re-distributed so as to be able to scale legally on the highway. In all cases the driver is the deciding voice in ensuring the metal is loaded, secured and can be transported safely.
- h) Skids/bundles must be loaded with the runners parallel to the side of the trailer. Briquettes should **NOT** be double stacked. Briquettes should be loaded either single or double wide from the nose of the trailer to end of the trailer.
- i) If loading single wide, skids/bundles should be loaded alternatively on the left side to the right side of the trailer, tight against one another so as to self-secure the load.
- j) All voids on loads must be properly blocked and braced to prevent shifting during transit. Loose or otherwise unrestrained skids/bundles or partial skids are not acceptable.
- k) Most loads of palletized class scrap can be secured using a staggered format while loading. Place first pallet in the nose of the trailer tightly in either the left or right corner. The next pallet should be loaded either directly beside the first pallet or if there's insufficient room, tightly against skid in front but on the opposing side of the trailer (as per diagram below). Loading should continue alternating from one side of the trailer to the other remembering to always place skids as tightly as possible against the previous one. This tight positioning will tend to self-secure the load. Loading evenly and on alternating sides will balance the load for safe transportation.
- l) Any row of class scrap pallets having greater than 6" of open space must have lateral blocking to ensure the row or skid doesn't shift during transportation. If skids are able to be loaded side by side and voids are left in the center of the trailer, these voids must have lateral T-blocking placed to prevent the skids from any movement. Shifting while in transit could cause the load to come out of balance and force the container off the train while en-route incurring significant costs.
- m) So as to prevent movement during transport, the skid or row of skids at the rear of the trailer must be T- blocked with 2" X 4" wood.

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- n) The bill of lading must list the scrap classification. The following information must be recorded on all shipping documents: vendor name, SRA number, PO number, product alloy, trailer number, seal number, product type, number of packages, gross weight, tare weight, dunnage, and net weight. Failure to indicate the tare weight will result in a deduction of 100 lbs. per skid. Material should be described "*Aluminum Scrap for Remelting Purposes Only*".
- o) Any truck shipment arriving improperly loaded is subject to rejection.
- p) While it is the driver's responsibility to ensure that his/her load is secure to move safely, it is common practice that the shipper ensure that adequate securement materials are made available for the driver to secure his/her load. It is recommended that the shipper not provide the driver his/her bill of lading for signature until some level of securement has been done.
- q) If shipping by intermodal transport, a copy of the bill of lading bearing all required information must be affixed to the inside trailer wall (not the door). This copy is in addition to the copy provided to the driver at the time of pick-up.
- r) Truck drivers must use proper personal protective equipment while on Novelis property. This includes safety glasses, steel or closed toed shoes, and hard hats. Please contact us for specifications on these. Drivers must wear long pants and at least a short sleeve shirt. Shorts or sleeveless shirts are not permitted. It is also recommended that hearing protection is worn and jewelry is not worn while in the plant.

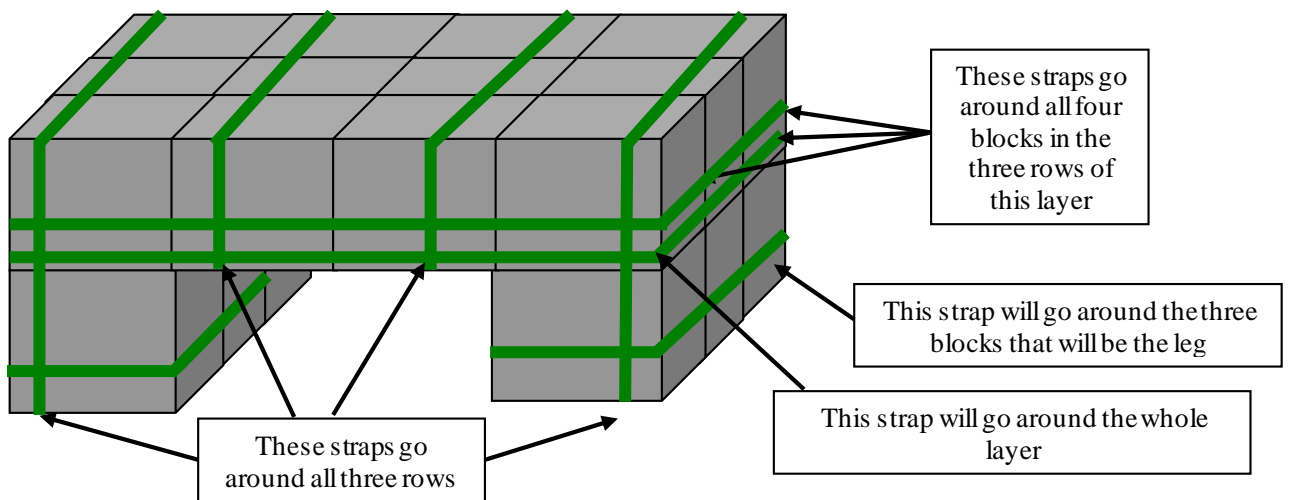
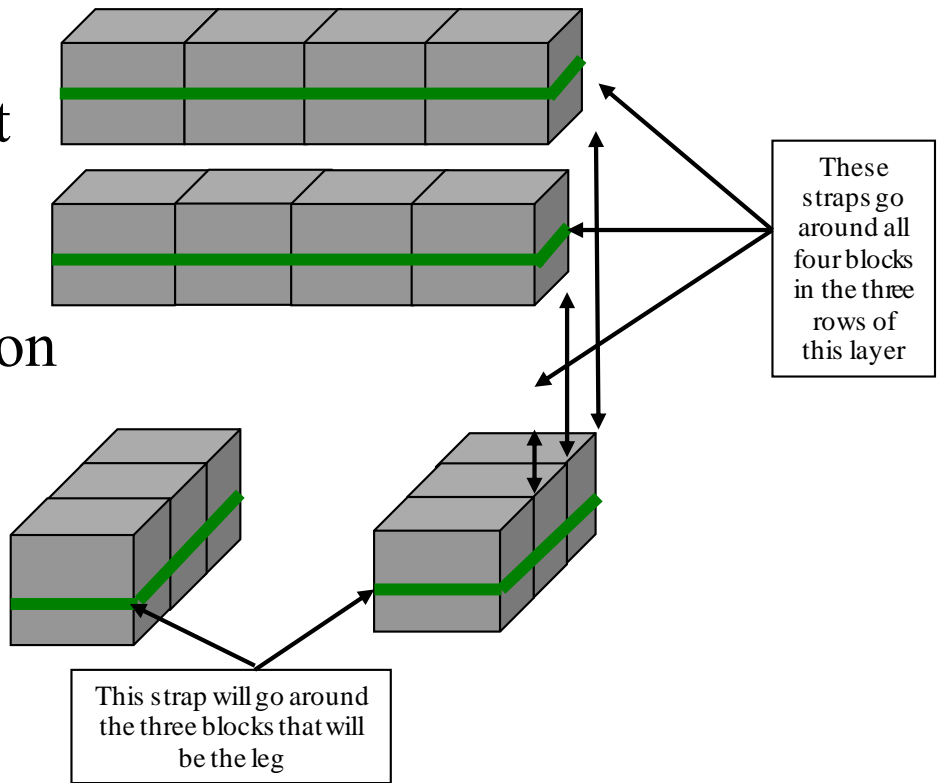
8.0 Railcar Loading Procedure:

- a) For briquetted scrap, standard boxcars with moveable bulkheads should be used. Cars must have a MINIMUM TEN FOOT DOORWAY clearance.
- b) Boxcars must be inspected prior to loading. Boxcars should be clean and free of foreign material. All bulkhead pin holes must be cleaned to ensure proper securing of bulkheads. Both doors should be operable on the boxcar.
- c) All skids/bundles of scrap in the ends of the car must be loaded with runners parallel to the sides of the car. Skids loaded in the doorway are to be loaded with runners perpendicular to the sides of the car. Two-high stacking of skids is acceptable if they are uniform in size and loaded solid from end to end with fixed bracing to fill any voids.
- d) Loads must be properly blocked and braced to prevent shifting during transit. Loose or otherwise unrestrained skids or partial skids are not acceptable. Railcars must be loaded so that unloading can be accomplished through the door on either side.
- e) Railcar loads must contain a minimum of 100,000 lbs. per car. Loads less than 100,000 lbs. are subject to inquiry.
- f) The packing slip must be attached inside the railcar on the car wall within six feet of the doorway. The packing slip must list each scrap classification separately. The following information must be recorded on all shipping documents: vendor name, SRA number, PO number, metal alloy, car number, seal number, product type, number of packages, gross weight, tare weight, dunnage and net weight. Failure to indicate the tare weight will result in a deduction of 100 lbs. per skid. Material should be described as "Aluminum Scrap for Remelting Purposes Only."
- g) Any railcar shipment arriving improperly loaded is subject to rejection.

9.0 Reasons for a Pallet-Less Scrap Program:

- a) Safer
- b) Improved Bundle Integrity – Transit
- c) Cost Less
- d) No Need for Pallets
- e) Time Saving
- f) Freight Savings
- g) Stackable
- h) Compatible With All Lift Truck Fork Sizes And Spacing

Plain/Bright Scrap Pallet-Less Configuration



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