



PRODUCT DESCRIPTION

Alcoa's 5454 alloy has been specifically developed for use in the manufacture of aluminum tank/dry bulk trailers and dump bodies. Our product's high strength, excellent weldability, formability, and corrosion resistance meets manufacturing and commercial requirements for cargoes from dry bulk to aggressive liquids.

Developed with the help of our industry renowned Alcoa Technical Center researchers and fabricated in our world class mills using Alcoa Production System principles, the BTS line of products offers unparalleled performance choices for every customer. Depending on the combination of material properties, functionality, and aesthetics needed in your trailer, one of Alcoa's BTS products will be the right solution for you.

FEATURES

Bulk Transport mill finish offers customers improved surface consistency and brightness with reduced surface blemishes and imperfections. Alcoa's Bulk Transport Sheet is most frequently used for a wide variety of dump bodies and trailers hauling dry bulk and abrasive materials. Surface blemishes on this engineered product are held to a minimum with brightness and image clarity being more typical of a uniform finish.

PRODUCT DETAILS

Chemical Composition Limits

Si	Fe	Cu	Mn	Mg	Cr	Zn	Ti
0.25	0.40	0.10	0.5-0.10	2.40-3.0	0.05-0.2	0.25	0.2

Mechanical Properties

Alloy Temper	Minimum			Typical		
	Ultimate Mpa/ksi	Yield Mpa/ksi	Elong % in 2"	Ultimate Mpa/ksi	Yield Mpa/ksi	Elong % in 2"
5454-0	215/31.0	85/12.0	18	250/36.0	120/17.0	22
5454-H32	250/36.0	180/26.0	8	275/40.0	205/30.0	10
5454-H34	270/39.0	200/29.0	7	300/44.0	240/35.0	10

Typical Physical Properties

	SI	English
Density	2.67 x 10 ³ kg/m ³	0.1 lbs./in ³
Average Coefficient of Thermal Expansion	23.6 x 10 ⁻⁶ per °C (20 °C to 100 °C)	13.1 x 10 ⁻⁶ per °F (68 °F to 212 °F)
Approximate Melting Range	600 – 645°C	1115 – 1195 °F
Thermal Conductivity	134 W/m ² *k at 25 °C	930 btu-in./ft ² hr °F

Approximate Bend Radii for 90° Cold Bend Sheet

Alloy/Temper	mm		in.		mm		in.	
	1.5	0.062	3.2	0.125	4.7	0.187	6.3	0.250
5454-0	1t		1t		1t		1-1/2t	
5454-H32	1t		2t		2t		2-1/2t	
5454-H34	1-1/2t		2t		2-1/2t		3t	

Radii expressed in terms of metal thickness "t"

SUPPLYING THE WORLD'S BEST



ALCOA MILL PRODUCTS

Product Specifications

Products	Sizes	Attributes
Bulk Transport Sheet	Gauge: 0.125" – 0.250" Width: 48" – 96" Length: 72" – 456"	High degree of surface uniformity, color, consistency, and selection.
Bulk Transport Sheet Specular Image	Gauge: 0.160" – 0.249" Width: 48" – 85" Length: 72" – 456"	Highly engineered mill surface with exceptional image and aesthetics.
Al-Bright	Gauge: 0.125" – 0.250" Width: 48" – 96" Length: 72" – 456"	Ultimate product in brightness, image clarity, surface uniformity.



PRODUCT SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE. PLEASE INQUIRE IF PRODUCT SPECIFICATION REQUIRED IS NOT LISTED IN TABLE ABOVE.

ALCOA MILL PRODUCTS

P.O. BOX 8025 • BETTENDORF, IOWA 52722 • (800) 523-9596 • www.millproducts-alcoa.com

August/04