



ANOGRIP® TYPE 4 IS A PROCESS THAT OFFERS THE CUSTOMER AN ANODIZED ALUMINUM FINISH WITH EXCEPTIONAL ADHESIVE QUALITIES ON BOTH SIDES OF THE SHEET THAT WILL WITHSTAND A T-PEEL STRENGTH OF AT LEAST 20 LBS/IN².

Our customers asked us to develop an anodized aluminum finish that will accept all types of adhesives without having to apply a primer coat or the need to treat the surface with *Hexavalent Chrome*, a known carcinogen. The chemical process refined by Lorin, increases the surface area creating a bondable surface that accepts many substrates such as resin soaked papers, MDF board, Plywood, PVC, and several other bonding materials.

INDUSTRY DESIGNATIONS

Aluminum Association
AA-M12-C20-A1x

ADHESION PROPERTIES

Adhesion Quality:
T-Peel Strength > 20 lbs/in; Using 1.6-mil 3M DP-420 Adhesive, Cured at 230-250°F for 60 ± 5 minutes.
Shelf-Life:
Recommended 6 months maximum

ALUMINUM PROPERTIES

Alloy 5052
Temper Quarter Hard
Finish Mill Finish

MECHANICAL PROPERTIES

UTS 31-38 ksi [214 - 262 MPa]
YTS 23 min [159 MPa]
Elongation 4% min

CHEMICAL PROPERTIES

Si 0.25 %
Fe 0.40 %
Cu 0.10 %
Mn 0.10 %
Mg 2.2 - 2.8 %
Cr 0.15 - 0.35 %
Zn 0.10 %
Other 0.15 %
Al Remainder

ANODIZE FILM THICKNESS

Functional Anodic Layer:

ANODIZE FINISH PROPERTIES

Optical N/A
Gloss N/A
Color Clear Anodized
Color Target N/A
UV Stable N/A
Environment N/A
Quality Grade 5
Other None

WIDTH AVAILABILITY

50.0" (1270 mm)

Other widths can be custom ordered.

GAUGE AVAILABILITY

0.0100" (0.2 mm)
0.0157" (0.3 mm)
0.0250" (0.6 mm)
0.0385" (0.9 mm)
0.0400" (1.0 mm)
0.0500" (1.2 mm)

ANODIZED FINISH TEST DATA

CHARACTERISTIC	TEST METHOD	STANDARD	TEST RESULTS
Oxide Layer, Weight	ASTM B137 - Coating Dissolution		Typically < 0.2 mg/cm ² (1.2 mg/in ²)
Adhesion Quality	ASTM D1876 - T-peel resistance test using 1.6mil 3M DP-420 adhesive	Lorin Commercial Standard	> 20 lbs/in ² peel strength

SECONDARY SERVICES

Shearing, Width Capabilities:

7" (178mm) - 62" (1575 mm)

Shearing, Length Capabilities:

Up to 192" (4876 mm)

Shearing, Loading Gauge:

Up to 0.080" (2.0 mm)

Slitting, Width Capabilities:

0.75" (19 mm) min

Slitting, Loading Gauge:

Up to 0.100" (2.5 mm)

Other Secondary Services:

International packaging

MAINTENANCE AND CLEANING

The anodized aluminum finish can be washed with mild soap and water followed by a clean water rinse. For more information on cleaning anodized aluminum, please refer to the Aluminum Association Publication 92, Care of Aluminum or AAMA 609 & 610-09, Cleaning and maintenance guide for architecturally finished aluminum.

SUSTAINABILITY AND LEED

Recycled Content, 5052 alloy:

100% recyclable

Post-Consumer, 0 %

Secondary Material, 38 %

Virgin Material, 62 %

2010.05.01 Mill30

Volatile Organic Compounds:

The aluminum oxide layer does not contain any VOC's

AVAILABILITY

The standard lead time for stocked gauges and widths is two weeks for anodizing and one week for any secondary services such as slitting, shearing and applying transparent protective films or paper.

Please check availability of Non-Stocked materials by contacting our sales staff using our toll free number 800.654.1159 or email your request to info@lorin.com. Some raw materials may have extended lead times.

TECHNICAL SUPPORT

A staff of factory trained personnel are available to offer technical assistance. Please call our toll free number 800.654.1159 or email your question to info@lorin.com.

PRODUCT SUPPORT PARTNERS

Lorin Industries works very closely with many manufacturers' in multiple markets who specialize in anodized aluminum fabrication. Our support staff can assist you if you are looking for finished components. Please call our toll free number 800.654.1159 or email your request for product and application support to info@lorin.com.

WARRANTY

A limited warranty is available upon request. The warranty is issued on a per project basis and can be applied for on line by completing an application for warranty at Lorin.com.