



1200 New Jersey Ave., S.E.  
Washington, DC 20590

December 6, 2007

In Reply Refer To:  
HSSD/WZ-262

Mr. Peter Nee  
9592 Deereco Road  
Timonium, MD 21093

Dear Mr. Nee:

Thank you for your correspondence requesting the Federal Highway Administration's (FHWA) acceptance of KomAlu 3 mm thick sign substrate. Accompanying your letter were product specification data and samples of the substrate. You requested acceptance of KomAlu as a sign substrate for use with accepted sign stands on the National Highway System (NHS) under the provisions of the National Cooperative Highway Research Program (NCHRP) Report 350 "Recommended Procedures for the Safety Performance Evaluation of Highway Features."

Upon request, you provided samples of the KomAlu sign substrate to the FHWA and a copy of the product specification data. The KomAlu product specification data are enclosed. The KomAlu sign substrate is a brand name of aluminum laminate material. The material properties of the 3 mm KomAlu substrate are nearly identical and considered to be equivalent to other previously accepted 3 mm aluminum laminate sign substrates. Our records indicate that 2 mm, 3 mm, and 4 mm aluminum laminate signs have been successfully crash tested on portable stands made by a number of manufacturers and are limited to use on the tested and accepted stands. Therefore, the FHWA accepts the use of KomAlu 3 mm aluminum laminate sign substrates for use on the NHS under the range of conditions that equivalent materials have been tested and accepted, when proposed by a State.

Please note the following standard provisions that apply to the FHWA letters of acceptance:

- This acceptance is limited to the crashworthiness characteristics of the devices and does not cover their structural features, nor conformity with the Manual on Uniform Traffic Control Devices.
- Any changes that may adversely influence the crashworthiness of the device will require a new acceptance letter.
- Should the FHWA discover that the qualification testing was flawed, that in-service performance reveals unacceptable safety problems, or that the device being marketed is significantly different from the version that was crash tested, it reserves the right to modify or revoke its acceptance.



- You will be expected to supply potential users with sufficient information on design and installation requirements to ensure proper performance.
- You will be expected to certify to potential users that the hardware furnished has essentially the same chemistry, mechanical properties, and geometry as that submitted for acceptance, and that they will meet the crashworthiness requirements of the FHWA and the NCHRP Report 350.
- To prevent misunderstanding by others, this letter of acceptance, designated as number WZ-262, shall not be reproduced except in full. This letter, and the test documentation upon which this letter is based, is public information. All such letters and documentation may be reviewed at our office upon request.
- The KomAlu is a patented product and considered proprietary. If proprietary devices are specified by a highway agency for use on Federal-aid projects, except exempt, non-NHS projects, they: (a) must be supplied through competitive bidding with equally suitable unpatented items; (b) the highway agency must certify that they are essential for synchronization with the existing highway facilities or that no equally suitable alternative exists; or (c) they must be used for research or for a distinctive type of construction on relatively short sections of road for experimental purposes. Our regulations concerning proprietary products are contained in Title 23, Code of Federal Regulations, Section 635.411.
- This acceptance letter shall not be construed as authorization or consent by the FHWA to use, manufacture, or sell any patented device for which the applicant is not the patent holder. The acceptance letter is limited to the crashworthiness characteristics of the candidate device, and the FHWA is neither prepared nor required to become involved in issues concerning patent law. Patent issues, if any, are to be resolved by the applicant.

Sincerely yours,

A handwritten signature in blue ink that reads "George E. Rice, Jr." with a stylized flourish at the end.

George E. Rice, Jr.  
Acting Director, Office of Safety Design  
Office of Safety

Enclosure

# KOMMERLING USA

## New Product Data Sheet

### KOMATEX® 19mm white and black and 25mm white:

Mechanical	Testing Method	Unit	Values
Apparent density	DIN 53 479	g/cm(3)	.05/.07
Tensile strength	DIN 53 455	N/mm(3)	12/20
<b>Tolerances:</b>			
Thickness(s)	+/- (0.1 mm + 0.05 x s)		
Width	-0 plus 1/8"		
Length	-0 plus 3/8"		
<b>Pallet quantities:</b>			
		Sheets per pallet	
19mm white	48 x 96	20	
19 mm black	48 x 96	20	
25 mm white	48 x 96	20	

### KOMACEL Plus™ Embossed 10, 13, 16, & 19mm 48 x 96

Mechanical	Testing Method	Unit	Values
Apparent density	DIN 792	(lbs.cu sft)	37
Flexural strength	DIN 790	(psi)	3950
Tensile strength	DIN 638	(psi)	1739
Compression strength	DIN 695	(psi)	2.018
Impact strength	DIN 256	(ft-lb. inch)	0.27
Thermal transmission (1")	C 518		1.976
Coefficient of linear expansion	D 696		3.2 x 10-5
<b>Pallet quantities:</b>			
		Sheets per pallet	
10mm	48 x 96	40	
13mm	48 x 96	40	
16mm	48 x 96	26	
19mm	48 x 96	24	

Cabot wood stains work well with **KOMACEL Plus™ Embossed**. Two coats of ProVT #0800 series will allow 10 years in exterior applications. Contact them directly for more info at 1-800-877-8246.

### KomAlu®

Mechanical	Testing Method	Unit	Values
Thickness		mm	3
Sheet size			48 x 96
Alloy		En AW	1100
Thickness tolerance	DIN 16927	mm	+/- 0,1
Weight		kg/m2	4.20
Coefficient linear thermal (from -50 to -80 C)		mm/mK	0.024
Fire behavior	DIN 4102		B2
Surface thickness		um	20+/-2
Surface			Polyester

Available in 3mm white/white 48 x 96 film masked. Ideal for exterior use and with 5 year exterior limited warranty makes this product ideal for exterior projects. **KomAlu®** works well with vinyl, screen and digital print. This product can also be formed, cut, bent, routed and even water jet cut, for precise corners and shapes.

<b>Pallet quantities:</b>			Sheets per pallet
3mm	48 x 96		80



# KOMMERLING®

KOMMERLING USA • 3402 Stanwood Blvd. • Huntsville, Alabama 35811

1-800-330-2239