



GRAPHIC-AL™ OR GRAPHIC-AL™ LT  
GRAPHIC-AL™ DP GRAPHIC-AL™ HP

MITSUBISHI PLASTICS COMPOSITES AMERICA, INC.

## FABRICATION NOTE

### PROCESSING METHOD

#### CUTTING/SAW OR DP LT HP

ALL GRAPHIC-AL™ PRODUCTS CAN BE EASILY CUT USING STANDARD WOODWORKING SAWS (I.E. CIRCULAR HAND SAW OR PANEL SAW). A CARBIDE TIP BLADE MADE FOR ALUMINUM AND PLASTIC IS THE MOST SUITABLE.

#### CUTTING/SUBSTRATE CUTTER OR DP LT HP

ALL GRAPHIC-AL™ PRODUCTS CAN ALSO BE CUT USING SUBSTRATE CUTTERS SUCH AS FSC (FLETCHER SUBSTRATE CUTTER) EQUIPPED WITH THE ALUMINUM COMPOSITE TOOL AND FOSTER'S KEENCUT STEELTRAK EQUIPPED WITH THE TWIN WHEEL CUTTING HEAD.

#### CONTOUR CUTTING OR DP LT HP

FOR CONTOUR CUTTING, USING A CNC ROUTER CAN PRODUCE A CLEAN CUT WITH HIGH PRECISION. AN 1/8"–1/16" STRAIGHT BIT IS SUITABLE. A FRET SAW, HAND ROUTER OR HAND JIG SAW CAN ALSO BE USED FOR CONTOUR CUTTING.

#### FOLDING AFTER GROOVING LT HP

TO FOLD GRAPHIC-AL™ LT AND HP, MAKE A GROOVE IN THE BACKSIDE OF THE MATERIAL.

THEN FOLD WITH A FOLDING JIG. GRAPHIC-AL™ OR AND DP ARE NOT SUITABLE FOR FOLDING AFTER V-GROOVING BECAUSE THE SKINS ARE TOO THIN FOR FOLDING PROPERLY.

#### CURVING LT HP

GRAPHIC-AL™ LT AND HP CAN BE CURVED BY MEANS OF ROLLER BENDERS AND PRESS BRAKES. GRAPHIC-AL™ OR AND DP ARE NOT SUITABLE FOR CURVING WITH PRESS BRAKES OR ROLLER BENDERS, BECAUSE THE FOAMED CORE DOES NOT ACCOMMODATE THE PRESSURE.

#### JOINING OR DP LT HP

WHEN THREADED FASTENERS OR RIVETS ARE USED FOR JOINING GRAPHIC-AL™, USE THOSE MADE OF ALUMINUM OR STAINLESS STEEL. PROPER CONSIDERATION SHOULD BE GIVEN TO THE THERMAL EXPANSION CHARACTERISTICS.

#### ADHESION/ADHESIVE, SEALANT AND DOUBLE-FACED TAPE

VARIOUS TYPES OF ADHESIVES CAN BE USED, INCLUDING EPOXY (ARALDITE), CHLOROPRENE (CONTACT CEMENT), ETC. BUT SOME ADHESIVES MAY CORRODE ALUMINUM AND MAY NOT WORK WELL WITH GRAPHIC-AL™ PRODUCTS.

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FOR EXAMPLE, VINYL ACETATE WHICH IS WIDELY USED FOR TIMBER AND STYRENE FOAM CORRODES ALUMINUM AND IS NOT SUITABLE. ADHERING GRAPHIC-AL™ TO A DISSIMILAR MATERIAL MAY CAUSE A DEFLECTION ON THE PANEL DUE TO THERMAL EXPANSION. SOME ADHESIVES MAY CAUSE A DISTORTION ON THE PANEL DUE TO HARDENING. CHECK THESE POTENTIAL PROBLEMS BY PRE-TESTING BEFORE USE. VARIOUS TYPES OF SEALANT CAN BE USED, INCLUDING SILICONE, MODIFIED SILICONE, POLYSULFIDE AND POLYURETHANE. DOUBLE-FACED TAPE CAN ALSO BE USED FOR GRAPHIC-AL™ OR OR DP.

#### SCREEN PRINTING

SCREEN PRINTING CAN BE DONE WITH AN EPOXY BASE OR URETHANE BASE TWO-PART TYPE INK. AFTER DRYING AT 175°F FOR 30 MIN AND CURING AT ROOM TEMPERATURE FOR 24 HRS, THESE INKS WILL SHOW A NORMAL ADHESION. KEEP THE TEMPERATURE ON OR UNDER 175°F AND HOLD THE GRAPHIC-AL™ PANEL HORIZONTALLY.

#### UV DIRECT PRINTING

BASICALLY ALL GRAPHIC-AL™ PRODUCTS ARE COMPATIBLE WITH UV DIRECT PRINTING. BUT OUR TESTS WITH GRAPHIC-AL™ OR, LT AND HP SHOW THAT SOME PRINTERS' INK ADHESION DOES NOT WORK AS WELL AS OTHERS'. CHECK THE INK ADHESION BY PRE-TESTING. FOR PERFECT INK ADHESION, WE RECOMMEND GRAPHIC-AL™ DP.

## INSTRUCTION FOR USE

#### PROTECTIVE FILM

ALL GRAPHIC-AL™ PRODUCTS COME WITH FACTORY APPLIED TRANSPARENT PROTECTIVE FILMS. GRAPHIC-AL™ OR AND LT HAVE FILMS ON BOTH SIDES. GRAPHIC-AL™ DP AND HP ONLY HAVE IT ON THE FRONT SIDE. REMOVE THEM AFTER FABRICATION.

#### COATING DIRECTION

IN METALLIC AND BRUSHED COLORS, A SLIGHT COLOR DIFFERENCE WILL BE NOTICEABLE BETWEEN THE PANELS ARRANGED IN DIFFERENT DIRECTIONS. ARRANGE PANELS IN THE SAME DIRECTION.

#### PREVENTION FROM EDGE CORROSION

IN OUTDOOR USE OR WHEN USING THE PANEL IN A HUMID ENVIRONMENT, DESIGN THE PANEL TO ALLOW ITS EDGE TO BE KEPT DRY, IN ORDER TO PREVENT EDGE CORROSION AND ENSURE LONG-TERM DURABILITY. IF THE EDGES WILL BE EXPOSED TO STAGNANT WATER, MAKE A DRAIN HOLE TO REMOVE THE WATER.



NOTE: UV DIRECT PRINT EXAMPLE, PRODUCED BY GANDINNOVATIONS' JETI UV FLATBED PRINTER

FOR MORE INFORMATION CALL  
1.800.422.7270