

# Next Generation Thermal Adhesive Film



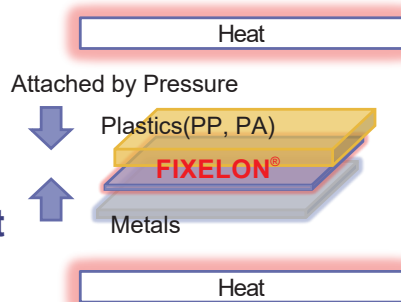
FIXELON® is a thermal adhesive film that bonds dissimilar materials by heat and pressure.

## Increased Productivity

- You can reduce complicated processes.
- (e.g.) Surface Treatment (Primer) NOT needed
- CuringTime NOT needed
- Control of Application Amount NOT needed

## Expected to Reduce environmental Impact

- Realized Low VOC (FIXELON® is Solvent-free film)
- Parts can be recycled (FIXELON® is thermoplastic film)



## Typical Adherend

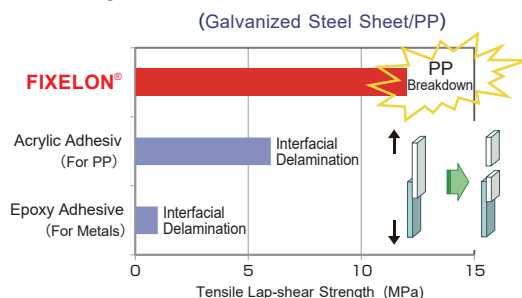
| Item  | Plastics  | Metals   | Others   |
|-------|---|--|--|
| Kinds | PP<br>(Polypropylene)<br>PA<br>(Polyamide)<br>TPO<br>(Thermoplastic Olefin Elastomer)<br>PE<br>(Polyethylene) | Iron<br>Aluminum<br>Stainless<br>Magnesium<br>Titanium | FRP<br>(CFRP, SMC etc)<br>Non-woven<br>Woods<br>EPDM |

## Strength

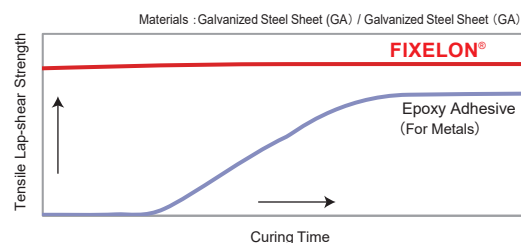
▼ Tensile-shear Strength (MPa)

| Adherend |  | FIXELON®               |
|----------|--|------------------------|
| Plastics | Metals                                       |                        |
| PP       | Aluminum (A 1050 grinded)                    | ≥ 10<br>(PP Breakdown) |
|          | Aluminum (Alumite Treatment)                 |                        |
|          | Cation Electrodeposition Coating Steel Sheet |                        |
|          | Galvanized Steel Sheet (GA)                  |                        |
| 55%GFPP  | Galvanized Steel Sheet (GA)                  |                        |

## Comparison with Adhesives



## Time to Express Adhesive Strength (Curing Time)



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CORPORATION  
Commercial Development Dept.

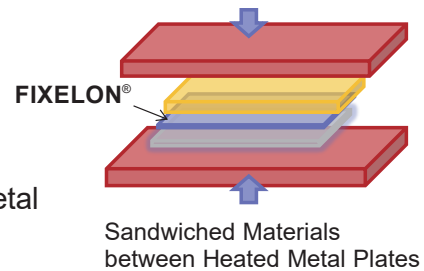
Email : c-d@aicello.co.jp



## ◆ Method Examples

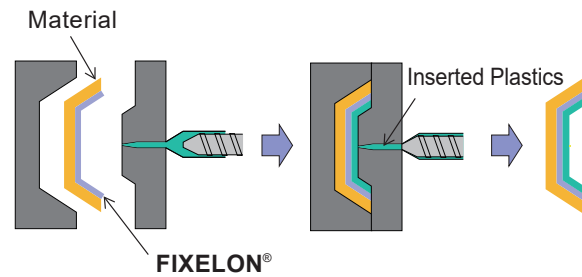
### 【 Hot Press 】 Bonding for Large Area!!

- ① Put FIXELON® between adherends
- ② Press adherend sand FIXELON® with heated metal plates, and weld

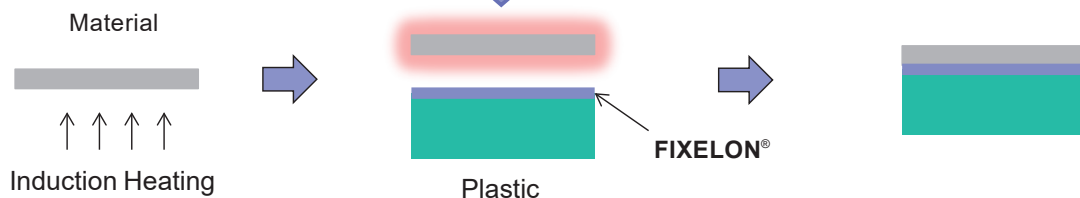


### 【 Insert Molding 】 Forming and Bonding at the Same Time!!

- ① A material and FIXELON® bond by heat
- ② Insert resin
- ③ FIXELON® is melted by inserted resin heat, materials by injection pressure

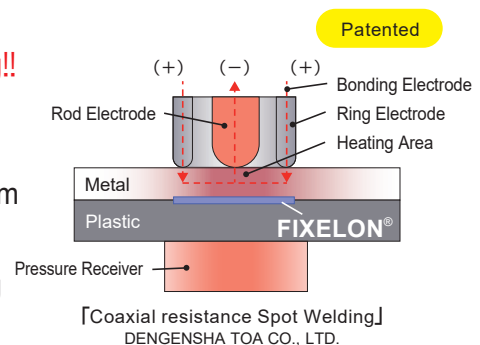


### 【 High Frequency Induction Heating 】 Fast Bonding!!



### 【 Resistance Welding 】 Fast Bonding!!

- ① Put FIXELON® between Adherends
- ② The metal is heated by energizing the rod electrode from the ring electrode via the metal
- ③ FIXELON® is Melted by Heat of Metal and finish bonding



「Coaxial resistance Spot Welding」  
DENGSHA TOA CO., LTD.

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