Bonding

Panlite® sheet can be bonded by adhesive agents, solvents, supersonic waves, etc.

☐Bonding by adhesive agents or solvents

As pretreatment, clean the bonding surface by neutral detergents or alcohol then roughen the surface by surface-roughing materials such as sandpapers. The table below shows bonding examples with commonly used adhesive agents and solvents. Most adhesive agents have low critical stress levels; When much strain remains, anneal the sheets before bonding.

Type	Adhesive agent	Manufactuer	Tensile shear strength (MPa)	Critical stress 23℃×24h (MPa)	Remarks
Epoxy-type	Cemedine 1500	Cemedine	4.4	61.8 over	Cure agent : Polyamide Pot life : 60min(20℃)
	Bond E Set M	Konishi	3.4	61.8 over	Cure agent : Modified Polyamide Pot life : 60min(20℃)
	Bond Quick Set	Konishi	2.0	61.8 over	Cure agent : Modified Polyamide Pot life : 4min(20℃)
Urethane-type	Bond KU-661/KU-662	Konishi	3.9	21.6	KU-661 : Polyester polyol KU-662 : polyisocyanate
α-cyanoacrylate-type (Instant adhesive)	Aron alpha #201	Toagosei	10.8	6.9	Viscosity : 2~6 (CPS)
	Three Bond 1770	Threebond	9.8	6.9	Viscosity : 2~5 (CPS)
	Cemedine 3000	Cemedine	8.3	6.9	Viscosity : 2~5 (CPS)
	Loctite 495	Japan Loctite	10.8	6.9	Viscosity : 40 (CPS)
Solvent-type	Bond VP-2000	konishi	10.3	7.8	Main component : Acrylics, Solvent : MEK
Solvent	Methylene chloride	-	10.8	-	