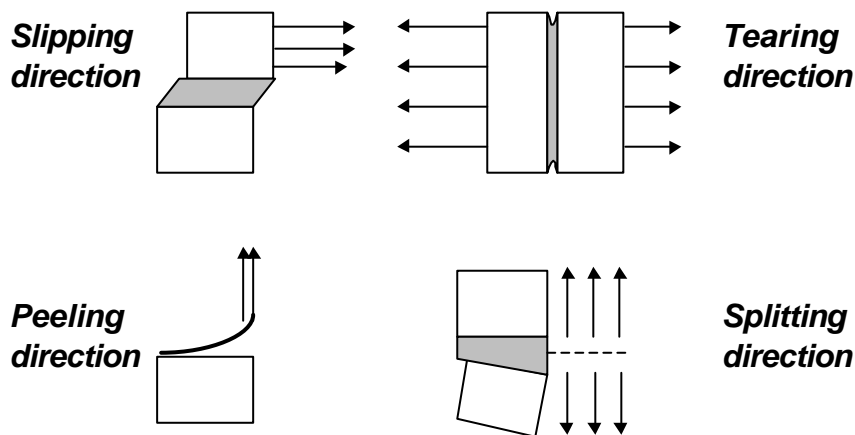


## Veralite® - Bonding

Veralite® has a high surface tension which makes every pretreatment unnecessary before the bonding of it.

Following guidelines on bonding :

- The surface to bond needs to be clean and free of contamination. To clean this surface, it is advised to use 10 % ethanol in a watersolution or a mixture of iso-propanol and water or a washing benzine
- Bonding strength is proportional to : pressure time and pressure force.
- Bonding is preferred in the tearing or slipping direction rather than in the peeling or cleaving direction, in order to have a strong bonding force. (see drawing)



Bonding types with filling properties :

- Hot-Melt types
- Polyurethane glues
- Epoxy 2 component glues, PVC (hard) adhesives and double coated acrylic foam tapes.

Veralite® 200 is easy bondable, whereas Veralite® 100, is more susceptible to whitening (crystallising), because of the higher chemical resistance.

Bonding of Veralite® 200 on :

Bonding type	Ver 200	Ver 100	Pmma/C	Pmma/XT	PC	PS clear	PS col.	Pvc-clear	Pvc foam.	Pvc stru.	Reference
CH <sub>2</sub> CL <sub>2</sub>	VG/T*	VG	VG/T*	G/T*	VG/T*	G/T*	G/T*	VG/T*	VG/T*	G/T*	Methylene
MEK	VG/T**	A	A	G/T**	VG	G/T**	G/T**	VG/T**	VG/T**	VG/T**	-
PVC (hard adh.)	VG/T*	G/T*	VG/T*	VG/T*	VG/T*	G/T*	G/T*	VG/T*	VG/T*	VG/T*	Bison, Pattex, ...
Contact adhesive	G-VG	G-VG	G	G	-	G	G	G	G	G	Bison, Henkel, ...
Epoxy 2 comp.	VG/T	A/T	A/T	P	-	A/T	A/T	P	P	P	Bison
UV-adhesive	VG/T**	G/T**	-	P	-	-	-	-	-	-	Loctite 305
Adhesive	VG/T**	VG	G/T**	P	-	P	A/T**	VG/T**	VG/T**	P	Meco MRAP-35
Cyano acrylate	VG/T**	VG/T**	VG/T**	VG/T**	VG/T**	VG/T**	VG/T**	VG/T**	P	P	Loctite406/3M E1100/Evot.TC731
Polyurethane	VG	VG	-	-	-	-	-	-	-	-	Henkel/Bison
D-coat.acr.f-tape	A/T	A/T	A/T	A/T	A/T	A/T	A/T	A/T	A/T	A/T	AFT4932/AFT4952/ATTF9 460PC
Extrufix	VG/T	P	VG/T	VG/T	-	-	-	VG/T	-	-	Evo-Plas/Evode
Sicomet 40	VG	-	-	-	-	-	-	-	-	-	Henkel
Sicomet 77	VG	-	-	-	-	-	-	-	-	-	Henkel
Ruplo M 804	VG/T*	-	-	-	-	-	-	-	-	-	Ruplo Holand
Hot Melt types	A	A	A	A	A	A	A	A	A	A	EastobondA747S/Thermel t2157
2 component PU	VG/T	G/T	VG/T	VG/T	-	-	-	-	-	-	Acrifix 200-(Röhm)- HE1908(Evode)
Silicone	G/T*	G/T*	-	-	-	-	-	-	-	-	Omnivisc 1050/Evo Stick
Parasilico	G	G	-	-	-	-	-	-	-	-	DL Chemicals (non transparent)
Parabond 600	G	G	-	-	-	-	-	-	-	-	DL Chemicals (white)

**LEGEND**

<b>VG</b>	= very good bonding strength ( $\geq 2\text{N/mm}^2$ )	<b>T</b>	= optically transparent
<b>G</b>	= good bonding strength ( $> 1\text{N/mm}^2 < 2\text{N/mm}^2$ )	<b>T*</b>	= optically transparent in case of edge-bonding
<b>A</b>	= Acceptable bonding strength ( $> 0,5\text{N/mm}^2 \leq 1\text{N/mm}^2$ )	<b>T**</b>	= transparent when the surfaces to be bonded are
<b>P</b>	= Poor bonding strength ( $< 0,5\text{N/mm}^2$ )		<15 mm and high pressure is exercised.

Bonding may cause loss of impact resistance.(especially with solvent or cyano-acrylic bonding)  
 Bonding of cold bent sheets is not advised (stress may cause cracking).  
 Proper testing is advised before bonding printed sheets.

Solvent bonding :

For precision work on small objects, you can use a hypodermic needle, allowing the solvent to flow throughout the area to be cemented.

When using the edge-dipping method, you need to dip the sheet into a shallow pan until it becomes soft.

*Solvent boiling paints :*

Methylenedichloride	40,5 °C
Acetone :	56,5 °C
Chloroform :	61,1 °C
M.E.K. :	79,7 °C

Solvents with a low boiling point may cause whitening and improper joints.

To prevent early evaporation, use a mixture of MEK (42%) and Trichlorethylene (42%).

Special attention should be paid to avoid the formation of air bubbles in the bond after curing.

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*All above information is based on current knowledge and experience. The data does not imply any warranty from the manufacturer towards third parties. Users should consider the above data as a guideline and gather additional information, to make independant decisions regarding the proper use, disposal, safety towards other parties and the protection of the environment.*

*For more specific information, please feel free to contact our technical department :*

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