

Adhesive Recommendations

Basic Criteria:

- *Must adhere to polypropylene and corrugated or dry wood* - most adhesives do not
- Failure mode is fiber tear (corrugated rips)
- Able to withstand supply chain (all temperatures)
- Must be able to be manually or automatically applied
- Only Adhesives outlined in this report are approved by OptiLedge LLC for bonding to the OptiLedge

Loading Requirements (based on 3000lb unit load):

Peel force	.4 lbs/inch
Horizontal shear force ("bulldoze")	7 lbs/inch (0.3 coefficient of friction - OptiLedge and unit)

Adhesives:



* Examples of forms of hot melt adhesives

Henkel 80-8707:

High temperature hot melt, very strong bond, yields complete corrugated failure. This adhesive can only be purchased in 5" bricks for production machines.

www.Henkel.com

3M – 3731 Jet Melt/Scotch-Weld:

High temperature hot melt also formulated to bond with polypropylene. This adhesive can be purchased in smaller quantities in slug form, to work with 3M PolyGun TC Quadrack guns. 3731 can be purchased in pellet form for larger scale production as well.

3731: Scotch-Weld(TM) Hot Melt Adhesive 3731 Q Tan, 5/8 in x 8 in, 11 lb per case

UPC: 0-00-21200-45271-03M ID: 62-3731-9132-9

www.3m.com

Glue Applicators:

- Large scale machines are available that will work with either type of adhesive.
- Providers of this equipment are (among others):
 - Nordson www.nordson.com
 - Melton www.meltonus.com
 - ITW Dynatec www.itwdynatec.com

- An example of a Nordson MiniSquirt sample gun on the left, and manual production applicator on the right:



- An example of a 3M Polygun TC gun:
 - This is the type of small batch gun used by OptiLedge LLC for trial work, and the type recommended for small scale production use.
 - Scotch-Weld(TM) Hot Melt Applicator TC with Quadrack Converter
UPC: 0-00-21200-89445-9
3M ID: 62-9990-9950-0



Suppliers:

Both adhesives are typically supplied by a network of various distributors recommended by Henkel or 3M.