

TECHNICAL BULLETIN Volume 1.90 - Aug. 2007

Building Green With Quad-Lock

Best Material Utilization Practices

Quad-Lock is recognized as being the most efficient ICF system on the market for, among other things, control of waste. This has a number of beneficial effects on the overall material cost of the project. The labor and fees spent on waste disposal and the reduction of life cycle cost for the building (operation and maintenance expenses), from an environmental impact perspective are significant. The design of the Quad-Lock system allows for use of scrap material later in the building process.

Panel "Scrap"

Quad-Lock Panels cut to fashion corners, T-walls, doors and window openings should have off-cut pieces stored in one or two central location(s) on the jobsite. When a detail calls for a cut panel, the person in charge of cutting should check the scrap pile first. In many instances, there will be scrap of adequate length to fashion the required piece. Quad-Lock's uniform design will allow placement of ties at any 2" [51mm] interval.

When the job is about 60% complete, the cutter should visit the scrap pile and fashion short panels of 12" [305mm], 24" [610mm] or 36" [914mm] lengths and substitute them in appropriate combinations for full 48" [1219mm] panels. Since the scrap is cut to 12" [305mm] intervals, each seam will be covered by a tie, so the wall does not suffer a loss of strength. This methodology will utilize the vast majority of scrap pieces.

We advise that pieces shorter than 12" [305mm] should not be used in the wall. More ties will be required to support these pieces, which may make your project short on ties in the end. Using the Quad-Lock Window Bracket, small panel scraps may be used to fully insulate window openings. End caps on wall terminations can also be formed using Window Brackets and panel scrap. (See Technical Bulletin No. 1.60)

Small panel pieces not useable in forming the wall can be placed over water supply lines buried in the earth to prevent freezing, to protect from backfill or seismic activity, or placed in attic space as additional insulation. It is possible, in this fashion, to finish a job with **zero panel waste**.

Panel Bags

Panel bags should never be opened on the sides, as score marks in the panels within may weaken panels during the pour. To access panels, bags should be opened **only at the ends** with a razor knife. In this fashion, panel bags can be recycled and used throughout the job as trash bags for removal of light construction waste generated by other trades. Bags are clearly marked "Do Not Cut" on the sides. Bags not re-used can be recycled wherever grocery bags and other plastics are accepted.



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Plastic Ties

Plastic ties are easily cut with common pruning shears. Quad-Lock Ties come from the factory in pairs, connected with two plastic ribs. When cut apart at the ribs, the ties can operate independently as needed in the wall. Single ties are useable, even if placed in pairs instead of full ties. All intact single ties should be collected from the jobsite and used in the wall.

Tie flanges – any intact tie flange should be saved for use in building corners and T-walls. Excess plastic material can be cut away and the flange inserted into corner brackets or window brackets.

Recyclable – any cut pieces of ties that are not useable are recyclable at any location that accepts (polypropylene) plastic materials.

Tie Boxes

Quad-Lock tie boxes are re-useable and/or recyclable. Waxed (winter) boxes make great storage or moving containers. Un-waxed (summer) boxes can be recycled anywhere cardboard is accepted. If a project is deemed environmentally sensitive, be sure to specify the un-waxed tie boxes for compliance to recyclability requirements.

Save money and help protect the environment by reusing and recycling Quad-Lock components throughout the job.

Head Office: 7398-132nd St., Surrey, BC Canada V3W 4M7
Tel: 604.590.3111 Toll Free: 888.711.5625 Fax: 604.590.8412

Web: www.quadlock.com Email: info@quadlock.com ISO 9001:2000 Certified Company