



# INSTALLATION MATRIX IVC FIBERGLASS SHEET VINYL

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## Chapter 1: *DEFINITIONS*

### Subfloors

**SUBFLOOR or SUBSTRATE** The surface that provides structure and support for the underlayment.

**UNDERLAYMENT** The smooth surface over which the floor covering will be installed.

**SUBSTRATE/UNDERLAYMENT SYSTEM** The required surface that provides structure, support, and the necessary smooth surface for IVC CUSHIONBACK FLOORING. These systems must be of double-layer construction.

### Grade Levels

**SUSPENDED** An acceptable suspended floor is a concrete or wood substrate with a minimum of 18" (460mm) of well-ventilated air space beneath it. IVC US recommends that a proven moisture vapor barrier be placed on the ground below the air space.

**ON-GRADE** An acceptable on-grade floor is a concrete substrate in direct surface contact with the ground at the surrounding ground level. Properly constructed, the concrete slab will be suitably protected from moisture penetration by planned water drainage and an incorporated proven moisture vapor barrier.

**BELOW-GRADE** An acceptable below-grade floor is a concrete substrate partially or completely in contact with the ground below the average surrounding ground level. Properly constructed, the concrete slab will be suitably protected by a proven moisture vapor barrier.

### Testing Concrete Substrate

**SUITABILITY** Regardless of the type of concrete or cement-like material used as a base for IVC CUSHIONBACK FLOORING, the responsibility for its use or suitability rest with that product's manufacturer or specifier, and not with IVC US.

**MOISTURE TESTING** It is the responsibility of both the contractor and the installer to test all concrete substrates, both old and new, for moisture content using the Calcium Chloride Moisture Test according to ASTM F-1869, with moisture not to exceed the recommended levels of 5 lbs or less per 1,000 sq. ft. in 24 hrs. (PH must be between 5 and 9.) A second testing option is the test method for determining relative humidity in concrete floor slabs using In-Situ Probes which should be less than 75% RH per ASTM F-2170.



## **Self-Leveling Compounds and Trowelable Underlayments**

Self-leveling products on the market today possess a variety of composition and performance characteristics. They are recommended by their manufacturers for leveling and smoothing rough or irregular substrates.

### **COMMON USES:**

- Leveling substrates
- Filling holes
- Filling cracks
- Embossing existing resilient floor/ceramic tile/VCT
- Encapsulating adhesive
- Filling saw cuts and construction joints \*

\*Do NOT fill actual expansion joints or other moving joints with elastomeric fillers that are designed to absorb movement in concrete slabs. Cementitious underlayments, patches and resilient flooring installed across true expansion joints will often buckle or crack when the slabs move. Usually architects will specify expansion joint covers for use with various floor coverings.

***Note: IVC US does not recommend or warrant the use of any product containing gypsum as a satisfactory patching compound for the installation of IVC CUSHIONBACK FLOORING. IVC US will not warrant or accept responsibility of any kind for flooring failures related to the use of gypsum-type patching or self-leveling compounds.***

### **ASBESTOS AND EXISTING RESILIENT FLOOR COVERING: WHAT YOU SHOULD KNOW**

Some flooring materials and adhesives contain asbestos fibers. The presence of asbestos in these products is not readily identifiable. Unless you are ABSOLUTELY POSITIVE (beyond a shadow of a doubt) that the product is asbestos-free material, assume that it contains asbestos.

***Always observe RSCI recommended work practices for the removal of resilient floor coverings containing asbestos.***

**IT IS THE INSTALLER'S / CUSTOMER'S RESPONSIBILITY TO BE 100% CERTAIN THAT ANY FLOORING MATERIAL OR ADHESIVE IS ASBESTOS-FREE BEFORE REMOVING IT.**



## **Acceptable Substrates / Underlayments**

- Plywood (APA registered underlayment)
- Hardboard
- OSB
- Concrete
- Gypcrete
- VCT
- Lauan
- Ceramic
- Terrazzo
- Self-leveling compound (NON-gypsum only)
- Particle board (underlayment quality only)
- Resilient floor (no more than 2 layers, bonded)

## **Unacceptable Substrates / Underlayments**

- Inter-flex and any perimeter bonded products
- Soft-back vinyl
- Cork
- Laminate
- Carpet
- Self-Leveling Compound Containing Gypsum

**NEVER INSTALL IVC CUSHIONBACK FLOORING OVER  
UNACCEPTABLE SUBSTRATES/UNDERLAYMENTS!**

***Note: IVC US will not warrant or accept responsibility of any kind for flooring failures related to the use of unacceptable substrates / underlayments.***



## Chapter 2: **INSPECT & PREPARE SUBFLOOR**

All floors must be clean, smooth, flat and dry before installation. The smoothness, flatness and levelness of a floor will affect the overall finished appearance of resilient floor covering.

Remove all foreign substances such as wax, grease, dirt and any substance or chemical that would interfere with a good bond. Fill all holes and cracks with a cement based patching compound. Sand high spots as needed to eliminate the possibility of telegraphing. Prime floor if needed to prevent over absorption of adhesives, contain dust, and to insure a better bond of adhesive to the subfloor, with **IVC FLEX-PRIM** Acrylic Latex Primer.

### IF INSTALLING OVER:

	OLD VINYL FLOORING	PLYWOOD	CONCRETE/ CERAMICS
<b>INSPECT</b>	Must be non-cushionback flooring, and firmly bonded, no more than 2 layers. Check for loose vinyl, gapped seams, cuts, tears, rips or other damage.	For both new and existing plywood subfloors, check for loose panels, gapped joints, knots, nail holes or other damage. If installing a wood or board type underlayment, we strongly suggest that you secure a written guarantee and installation instructions from the manufacturer or supplier of the underlayment board being used.	Check for cracks, unevenness and other damage. If installing over ceramic tiles or terrazzo, be certain that the tiles are firmly bonded.
<b>PREPARE</b>	Remove dirt and wax build-up. Remove loose vinyl and patch cracks. Emboss floor if necessary. Floor must be embossed if installing product with a total gauge of 75 mils or less.	Patch holes and sand joints level. Remove dirt and dust.	Emboss ceramic tile to fill grout lines. Patch holes and cracks. Remove dirt and dust.



**IVC Fiberglass sheet vinyl is the FIRST currently available resilient flooring that can be installed over OSB/chip board using the full spread method! In order to assure a good outcome, the following five requirements must be observed carefully and completed as directed:**

1. The OSB must be contractor's grade, and not weathered.
2. Joints must be reinforced using screws or shank nails every six inches on both sides of the joint. *Note: If joints are nailed with twelve-penny nails, the nails will work themselves loose over time, the joints will lift and the job will fail.*
3. Completely sand the floor with a floor sander, so that the floor is smooth and flat. *Note: The chips in OSB overlap. Without sanding properly, OSB has high and low spots throughout the floor that could telegraph through IVC cushionback vinyl.*
1. Vacuum the floor with a power vacuum so that it is dust free. *Note: If dust is left on the floor, the adhesive will not bond to the underlayment. As an additional precaution, you can prime the OSB (or any porous surface) with **IVC FLEX-PRIM** Acrylic Latex Primer.*
2. Follow full spread installation instructions.



## Chapter 3: *INSTALLATION*

### Full-Spread Installation Method

The full-spread professional installation method is the required installation process for all IVC fiberglass sheet vinyl products. This installation method provides optimal performance of the vinyl and should be used in any area over 25 square yards, in heavy traffic areas, kitchens and home offices.

Inspection of flooring material prior to installation is required. Any defects should be immediately reported to the retail store from which the flooring was purchased before installation. The installer is responsible for labor costs to repair or replace material with defects that were apparent before or noticed at the end of an installation.

#### Materials required:

- 3/8" short nap paint roller
- **IVC FLEX-TECH Pressure Sensitive Adhesive**
- **IVC FLEX-SEAM Premium Seam Bond**
- Duck Acrylic Double Face Tape
- Sharp utility knife
- Straight edge
- Push broom

#### *Installation Steps:*

1. Prepare substrate in order for the surface to be clean, smooth, flat and dry. Under cut all door jambs to maintain a 1/8" relief gap. (If metal jamb must leave 1/8" expansion gap and caulk with 100% silicone caulking before completing job.)
2. Place acrylic double face tape at all doorways where a transition strip is needed, next to sliding doors, patio door sills, in front of tubs and shower stalls and similar areas where an expansion gap will not be covered with trim. Place acrylic double face tape around all floor vents to eliminate air migrating under vinyl causing bubbles. Do NOT tape along walls or around perimeter of room.
3. Align the pattern with the most dominant wall to achieve the best appearance in the room. Using a sharp utility knife, trim away excess material along the walls, at cabinets, etc., leaving approximately 2" of vinyl at these areas to be trimmed off later (rough cut).
4. If a seam is required please follow the instructions for **SEAMING in a fully adhered installation.**
5. Make relief cuts at corners and projections to allow the material to lay flat before the final cuts are made. Final trimming should be done by cutting in with a utility knife



or trimmer leaving a 1/8" to 1/4" expansion gap. The gap allows for sub-floor movement caused by changes in atmospheric conditions. The material **should not touch** the wall or corners at any point or bubbles or wrinkles may occur.

The material must lay flat to stay flat.

**Final cuts must be made prior to applying adhesive.**

6. Fold back material one half at a time and roll on a thin layer of **IVC FLEX-TECH** Pressure Sensitive Adhesive with a 3/8" short nap paint roller.

APPLICATOR	SPREAD RATE	DRY TIME
★ 3/8" SHORT NAP PAINT ROLLER	350-400 sq ft per gallon	20 minutes

7. Before laying material back, make sure the adhesive is completely dry (should be tacky to the touch). There should be no transfer of adhesive to material. (If needed a fan can be used to accelerate drying time.) Average drying time is around 20 minutes. If the adhesive is not completely dry before installation of material, the adhesive will continue to release gasses causing bubbles under the vinyl material, which could cause wrinkles or a permanent bond.
8. Slide the material in place so that no shifting can occur. Do not lift the vinyl into place because it may shift slightly and wrinkle.
9. Starting at the center of the floor, remove air from under material using a push broom (broom method).  
**DO NOT use any type of flooring roller, i.e. 75 or 100 pound roller.**  
Do not twist material when placing it onto the adhesive.
10. Repeat steps 6-8 for the remaining half of the flooring material.
11. Use quarter round or base board to cover the exposed expansion gap. When installing quarter round or any moldings, make sure that they are fastened only to the wall and do not pinch the material at any point.

### **SEAMING in a Fully Adhered Installation**

1. After adhesive is rolled on and completely dry position the flooring by over-lapping the seam edges. (Make sure to match pattern.)
2. With a straight edge and a sharp utility knife, cut through both layers of flooring material (double cut) at the designated match point. Make sure the utility knife blade is held in an upright position for a clean 90 degree cut.
3. Remove and discard waste material.
4. Fold back about 8" of the vinyl of one side of the seam and apply a small bead of **IVC FLEX-SEAM** Premium Seam Bond to one edge of the vinyl that is on the floor.
5. Tuck the seam edges together and wipe off excess sealer with a clean, damp cloth.
6. Use a resilient flooring type hand roller (or wallpaper seam roller) to squeeze out any remaining sealer from the seam. Immediately clean seam with a damp cloth followed by a clean, dry cloth.
7. Protect the seam and allow it to dry (approximately 6 hours).





## Loose-Lay Installation Method: Up to 25 square yards and only 1 seam

***Note: Rolling chairs, rolling microwave stands, appliances, heavy furniture and pivot points like those in front of a sink or work area may cause wrinkling in loose-lay applications. In these areas we highly recommend the full-spread method with pressure sensitive adhesive.***

1. Prepare substrate in order for the surface to be clean, smooth, flat and dry. Under cut all door jambs to maintain a 1/8" relief gap. (If metal jamb must leave 1/8" expansion gap and caulk with 100% silicone caulking before completing job.)
2. Align the pattern with the most dominant wall to achieve the best appearance in the room. Using a sharp utility knife, trim away excess material along the walls, at cabinets, etc., leaving approximately 2" of vinyl at these areas to be trimmed off later (rough cut).
3. Place acrylic double face tape at all doorways where a transition strip is needed, next to sliding doors, patio door sills, in front of tubs and shower stalls and similar areas where an expansion gap will not be covered with trim. Place acrylic double face tape around all floor vents to eliminate air migrating under vinyl causing bubbles. Do NOT tape along walls or around perimeter of room.
4. Apply an "X" of acrylic double-face tape under appliances and pivot points.
5. Cut in material leaving a 1/8" expansion gap around the perimeter of the room and cabinets.
6. Make relief cuts at corners and projections to allow the material to lay flat before the final cuts are made. Final trimming should be done by cutting in with a utility knife or trimmer leaving a 1/8" to 1/4" expansion gap. The gap allows for sub-floor movement caused by changes in atmospheric conditions.  
The material **should not touch** the wall or corners at any point or bubbles or wrinkles may occur. The material must lay flat to stay flat.
7. Use the push broom method to thoroughly remove the air from under the vinyl. Make certain all air is removed.
8. Use quarter round or base board to cover the exposed expansion gap. When installing quarter round or any moldings, make sure that they are fastened only to the wall and do not pinch the material at any point.
9. IF a seam is required please follow the instructions for **SEAMING in a loose-lay application.**



## **SEAMING in a Loose-Lay Application**

1. Position the flooring by over-lapping the seam edges. (Make sure to match pattern.)
2. With a straight edge and a sharp utility knife, cut through both layers of flooring material (double cut) at the designated match point. Make sure the utility knife blade is held in an upright position for a clean 90 degree cut.
3. Remove and discard waste material.
4. Fold back about 8" of the vinyl of one side of the seam and apply a small bead of **IVC FLEX-SEAM** Premium Seam Bond to one edge of the vinyl that is on the floor.
5. Tuck the seam edges together and wipe off excess sealer with a clean, damp cloth.
6. Use a resilient flooring type hand roller (or wallpaper seam roller) to squeeze out any remaining sealer from the seam. Immediately clean seam with a damp cloth followed by a clean, dry cloth.
7. Protect the seam and allow it to dry (approximately 6 hours).

### **ADDITIONAL INSTRUCTIONS:**

- Always inspect the flooring thoroughly before installation.
- DO NOT slide heavy appliances or furniture over or across the flooring. Always lift objects and place them on the flooring or reposition appliances and furniture using professional moving glides or carpet with the pile side down.
- In-floor heat/AC registers may rest on the vinyl floor, but leave space under registers that are attached to the floor or wall. They should not pinch the flooring material.
- Use permanent 100% silicone caulk next to bathtubs, showers, sliding doors, patio doors, around metal door jambs or similar areas.
- For bathroom installations, it is not necessary to remove the toilet. Make relief cuts around the perimeter of the toilet and make sure the vinyl flooring is laying flat before trimming off the excess material. Apply permanent flexible 100% silicone caulk around the toilet, next to the bathtubs and showers to prevent moisture from getting under the vinyl. Note: if there is ceramic sanitary cove and no place to install trim mold, you can apply caulk around the walls.
- Make sure furniture legs have large surface, non-staining floor protectors. Replace small, narrow metal or dome-shaped glides with smooth, flat glides that are in flat contact with the floor.
- Do NOT use a trowel for application of pressure sensitive adhesive.
- Never tape around the perimeter of the room.
- Never apply IVC flooring to a wet adhesive. This could cause permanent bond or wrinkling.



## **SPECIALTY INSTALLATIONS**

### **Radiant Heat Floors**

IVC CUSHIONBACK FLOORS may be installed over radiant heating floors, provided the operating temperature does not exceed 85°F at any point in the floor.

***Note: During installation, lower the radiant heat floor temperature to the acceptable 65°F. This temperature should be maintained for at least 24 hours before, during, and 48 hours after completion of the installation. On ground floors, the radiant system should have a proper moisture barrier beneath it. Concrete should be tested for moisture using approved methods before the IVC CUSHIONBACK FLOOR is installed.***

### **Three Season Porches**

IVC CUSHIONBACK FLOORS may be installed in three season porches provided the room temperature is at an acceptable 65°F and does not exceed 75°F **during installation.**

***Note: This temperature should be maintained for at least 24 hours before, during, and 48 hours after completion of installation. The proper moisture barrier should be in place. Concrete should be tested for moisture using approved methods before the IVC CUSHIONBACK FLOOR is installed.***

### **Flash Cove**

Place double-face tape ½ inch under the end cap, and at inside and outside corners. Roll the adhesive up the wall to the double face tape, allow adhesive to dry, remove the paper off the tape, and slide the material into the end cap as you stick the material to the tape.

### **Steps**

Pre-cut each step and riser. Apply Taylor 2091 adhesive on step and riser flooring piece with 3/8" short nap paint roller. Adhesive is aggressive and will permanently bond material to step. Carefully place the material on the step and rub smooth with your hand while adhesive is wet. Use a stair nose to finish off the front edge of the step. Use strip of acrylic double-faced tape on riser under stair nose.



## Chapter 4: ***TROUBLE SHOOT / REPAIR***

### **SEAMS**

**Problem: PEAKS/LEDGING**

**Solution:** Place acrylic double-face tape in front of the edge of the seam that is too high. Then lay the edge that is low onto the tape. This will bring the seam edges to the same height.

**Problem: GAPS**

**Solution:** Lift the fill piece and move over to close the gap. Re-seal the edges with IVC FLEX-SEAM premium seam bond.

**Problem: BUBBLES at SEAMS**

**Solution:** The seam is too tight. Trim to relieve the pressure and flatten the seam.

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### **BUBBLES**

**Problem: BUBBLES due to WET LAY INSTALLATION**

**Cause:** Material was installed over wet adhesive.

**Solution:** Pull back material and allow adhesive to dry completely. After adhesive is dry, lay material back in place and use the broom method for removing air pockets.

**Note:** *If material can't be pulled back because the adhesive has formed a permanent bond, or if the bubble is in an area that can't be reached, use a hypodermic needle to extract the air out of the bubble. Then set a heavy weight on the bubble for four hours.*

**Problem: BUBBLES due to TWISTING**

**Cause:** If the material is twisted it will cause a bubble that is at an angle.

**Solution:** Pull material back to the bubble and move it left or right, depending on the direction the material is twisted. When material is straight and lays flat, use the broom method for removing air pockets.

**Note:** *This type of bubble will occur at a doorjamb where the material went from one room to another, at the corner of a cabinet or island, or sometimes in the middle of a room. The angle of the bubble will help you determine which way the material was twisted.*

**Problem: BUBBLES due to TRAPPED AIR**

**Cause:** Air was not thoroughly removed from beneath the material.

**Solution:** Pull back material past the bubble, lay back material and use the broom method for removing air pockets.



**Problem: BUBBLES due to HIGH MOISTURE CONTENT or LEAKS**

**Cause:** Moisture is trapped under the floor.

**Solution:** Pull back material and allow moisture to evaporate. Reapply adhesive in areas that were wet, and allow to dry completely. Then lay back material and use the broom method for removing air pockets.

***Note: If the bubbles were caused by high moisture content, a Calcium Chloride Test should have been performed prior to installation. If the bubbles were caused by a water leak, the leak should be repaired immediately.***

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## **BUCKLES**

**Problem: BUCKLES ALONG WALLS or CABINETS**

**Cause:** If material is too tight due to the lack of an expansion gap, it will buckle along walls or cabinets.

**Solution:** Material must be cut back 1/8" from walls and cabinets, allowing it to lay flat.

**Problem: BUCKLES at DOORJAMBS**

**Cause:** If doorjambs are not undercut it will cause a buckle at the doorjamb.

**Solution:** Material must be cut back 1/8" from doorjamb, allowing it to lay flat.

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## **WRINKLES**

**Problem: WRINKLES due to MOVING HEAVY OBJECTS**

**Cause:** When the loose-lay method is used, rolling chairs, microwave stands, appliances or heavy furniture on the material could cause wrinkles.

**Solution:** Fold back material and apply double-face tape in an "X" under wrinkles.

**OR**

Use the full spread method and re-install the material.

**Problem: WRINKLES due to PERIMETER ADHESIVE APPLICATION**

**Cause:** If adhesive is applied around the perimeter of a room only, wrinkles may result.

**Solution:** Release the material from three walls so it can lay flat.

**OR**

Use the full spread method and re-install the material.

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## **TRANSFERRING**

**Problem: TRANSFERRING/TELEGRAPHING**

**Cause:** If material is installed over an existing resilient floor and laid into wet adhesive, the pattern underneath may transfer/telegraph through.

**Solution:** Pull back material and allow adhesive to dry. Lay material back in place and use the broom method for removing air pockets. If existing vinyl is deeply embossed, it should be filled with a cementitious patching compound and allowed to dry thoroughly before replacing vinyl.

**Note:** *IVC is not responsible for material and/or installations laid into wet adhesive.*

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## **STAINS**

**Problem: STUBBORN STAINS**

**Cause:** Recommended cleaners and solvents will not remove stains that have penetrated the floor.

**Solution:** Soak a WHITE towel in a chlorine bleach solution of 1 part water and 1 part bleach. Place the wet towel on the stain and allow to work for 24 hours.

**Note:** *DO NOT USE A COLORED TOWEL when treating tough stains using the dilute bleach method. The bleach will pull the dye out of the colored towel and stain the floor.*

## **REPAIRS**

**GOUGES:** Heat the gouge so it will lay flat, then lift one edge and apply seam sealer to the edge of the gouge and work the edges together with a utility knife. Roll the gouge with a hand roller, wipe off excess sealer with a damp cloth and dry with a dry cloth.

**PATCHES:** Find the pattern match you need, using a grout line if possible. Lay material to be used for the patch on top of the damaged piece and align the pattern, using double-face tape to prevent the patch from moving. Double cut through both thicknesses using a utility knife. Remove the damaged piece, apply seam sealer along the edge of patch and set in place. Roll with a hand roller, wipe off excess sealer with a damp cloth and dry with a dry cloth.

**PLUGS:** If you do not have the pattern or enough material for a patch you can make a plug. Using a piece of material with colors similar to those in the area you are repairing, place a small piece of double-face tape on the damaged area and set your repair piece on top of the tape to hold it in place. Use a utility knife to double cut the plug in the shape of a square or triangle that is three inches larger than the area you are repairing. Remove the damaged piece, apply seam sealer along the edge of the plug and set in place. Roll with a hand roller, wipe off excess sealer with a damp cloth and dry with a dry cloth.



## **IVC RECOMMENDED PRODUCTS**

### **Recommended Adhesives**

**IVC FLEX-TECH** Pressure Sensitive Adhesive

### **Recommended Seam Bond**

**IVC FLEX-SEAM** Premium Seam Bond

### **Recommended Acrylic Double Face Tape**

Duck Acrylic Double Face Tape

### **Other IVC installation products available:**

**IVC FLEX-PRIM** Acrylic Latex Primer



## CONVERSION CHART

### SQUARE FOOT / SQUARE YARD CHART FOR 4 METER (13'2") FLOOR COVERING

Square feet and square yard per lineal feet (LF) of 4 meter (13'2") wide flooring

<i>Inch</i>	<i>Ft<sup>2</sup></i>	<i>Yd<sup>2</sup></i>	<i>LF</i>	<i>Ft<sup>2</sup></i>	<i>Yd<sup>2</sup></i>	<i>LF</i>	<i>Ft<sup>2</sup></i>	<i>Yd<sup>2</sup></i>	<i>LF</i>	<i>Ft<sup>2</sup></i>	<i>Yd<sup>2</sup></i>
1	1.094	0.122	22	288.71	32.08	57	748.03	83.11	92	1207.35	134.15
2	2.187	0.243	23	301.84	33.54	58	761.15	84.57	93	1220.47	135.61
3	3.281	0.365	24	314.96	35.00	59	774.28	86.03	94	1233.59	137.07
4	4.374	0.486	25	328.08	36.45	60	787.40	87.49	95	1246.72	138.52
5	5.468	0.608	26	341.21	37.91	61	800.52	88.95	96	1259.84	139.98
6	6.562	0.729	27	354.33	39.37	62	813.65	90.41	97	1272.96	141.44
7	7.655	0.851	28	367.45	40.83	63	826.77	91.86	98	1286.09	142.90
8	8.749	0.972	29	380.58	42.29	64	839.89	93.32	99	1299.21	144.36
9	9.843	1.094	30	393.70	43.74	65	853.02	94.78	100	1312.33	145.81
10	10.936	1.215	31	406.82	45.20	66	866.14	96.24	101	1325.46	147.27
11	12.030	1.337	32	419.95	46.66	67	879.26	97.70	102	1338.58	148.73
12	13.123	1.458	33	433.07	48.12	68	892.39	99.15	103	1351.70	150.19
			34	446.19	49.58	69	905.51	100.61	104	1364.83	151.65
			35	459.32	51.04	70	918.63	102.07	105	1377.95	153.11
<i>LF</i>	<i>Ft<sup>2</sup></i>	<i>Yd<sup>2</sup></i>	36	472.44	52.49	71	931.76	103.53	106	1391.07	154.56
1	13.12	1.458	37	485.56	53.95	72	944.88	104.99	107	1404.20	156.02
2	26.25	2.916	38	498.69	55.41	73	958.00	106.44	108	1417.32	157.48
3	39.37	4.374	39	511.81	56.87	74	971.13	107.90	109	1430.44	158.94
4	52.49	5.833	40	524.93	58.33	75	984.25	109.36	110	1443.57	160.40
5	65.62	7.291	41	538.06	59.78	76	997.37	110.82	111	1456.69	161.85
6	78.74	8.749	42	551.18	61.24	77	1010.50	112.28	112	1469.81	163.31
7	91.86	10.207	43	564.30	62.70	78	1023.62	113.74	113	1482.94	164.77
8	104.99	11.665	44	577.43	64.16	79	1036.74	115.19	114	1496.06	166.23
9	118.11	13.123	45	590.55	65.62	80	1049.87	116.65	115	1509.18	167.69
10	131.23	14.581	46	603.67	67.07	81	1062.99	118.11	116	1522.31	169.15
11	144.36	16.040	47	616.80	68.53	82	1076.11	119.57	117	1535.43	170.60
12	157.48	17.498	48	629.92	69.99	83	1089.24	121.03	118	1548.55	172.06
13	170.60	18.956	49	643.04	71.45	84	1102.36	122.48	119	1561.68	173.52
14	183.73	20.414	50	656.17	72.91	85	1115.48	123.94	120	1574.80	174.98
15	196.85	21.872	51	669.29	74.37	86	1128.61	125.40	121	1587.92	176.44
16	209.97	23.330	52	682.41	75.82	87	1141.73	126.86	122	1601.05	177.89
17	223.10	24.789	53	695.54	77.28	88	1154.85	128.32	123	1614.17	179.35
18	236.22	26.247	54	708.66	78.74	89	1167.98	129.78	124	1627.29	180.81
19	249.34	27.705	55	721.78	80.20	90	1181.10	131.23	125	1640.42	182.27
20	262.47	29.163	56	734.91	81.66	91	1194.22	132.69	126	1653.54	183.73
21	275.59	30.621									

EXAMPLE: 4 METER WIDE X 80 LINEAL FEET = 1049.87 SQUARE FEET = 116.65 SQUARE YARDS

1/24/2006