

## An Assessment of the Residential Siding Market in the Puget Sound

*The market for residential decking and siding products in North America has become increasingly competitive over the past two decades. An increasing assortment of substitute products, coupled with the aggressive promotional and product-service campaigns of competitors, have contributed to the declining market share of solid wood siding. To determine which factors influence builders' and homeowners' decision to use western red cedar (WRC) as a residential siding material relative to substitute products, the Center for International Trade in Forest Products (CINTRAFOR) conducted an in-depth analysis of the market for WRC residential siding products in North America.*

### The Residential Siding Market

Fifteen materials are commonly used in the residential siding market. Vinyl, structural panels (i.e., OSB and plywood), brick, and hardboard, however, are the dominant residential siding materials installed. The siding market is characterized by aggressive price competition, low product differentiation despite significant contrasts between the physical attributes of the products available, economies of scale, well-developed marketing and distribution systems, and an intensification of competition among manufacturers and distributors.

Table 1. Estimated market share of residential siding materials in Puget Sound region and nationally in 1994.

Siding Material	Square Feet Installed	Puget Sound (percent)	National (percent) <sup>a</sup>
Oriented Strandboard	2,630,465	49.53	27.9 <sup>b</sup>
Hardboard	662,296	12.47	13.2
Plywood	548,900	10.33	-- <sup>b</sup>
Western Red Cedar	470,805	8.86	2.5
Stucco	232,475	4.38	--
Vinyl	202,770	3.82	36.7
Brick	189,880	3.58	17.2
Cedar Shakes/Shingles	177,275	3.34	--
Wood Fiber-Cement	170,340	3.21	--
Other (e.g., metal)	13,500	0.25	--
Spruce	12,500	0.24	--
Aluminum	650	0.01	2.4
Redwood	0	0.00	--
<b>Total</b>	<b>5,311,256</b>	<b>100.0</b>	<b>99.9</b>

<sup>a</sup> National market share statistics represent 1994 data collected specifically for this study.

<sup>b</sup> Plywood and OSB residential siding materials are combined in the OSB category to represent a national market share of 27.9%.

According to market share estimates, vinyl siding products control 36.7 percent of the residential siding market. Trailing vinyl siding in market share are structural panels (27.9 percent), brick (17.2 percent), hardboard (13.2 percent), WRC (2.5 percent), and aluminum (2.4 percent). In the past eight years, the total residential siding market has grown at an average annual rate of 0.46 percent. Vinyl siding use has grown at an average annual rate of 10.25 percent. The only other residential siding material to experience growth in this same period has been WRC, which has grown at an average annual rate of 3.52 percent.

Relative differences in material and installation costs typically establish the competitive relationships between materials used in the residential siding market. In the residential siding market brick and WRC, are differentiated to a much greater degree by the image they project. Past research has shown that consumers perceive vinyl, aluminum, hardboard, and plywood residential siding materials to be close substitutes for one another. Therefore, these four residential siding materials compete primarily on price and installation cost.

Relative to competing residential siding materials, consumers perceive WRC and redwood siding to be expensive and time-consuming to install. Builders' believe the price of WRC siding is unstable and its grading is inconsistent. Despite this, consumers believe WRC has tremendous curb appeal and a high status image, nearly equal to that of brick. Unfortunately, the image and beauty characteristics of WRC residential siding are overshadowed by consumers' perception that WRC is expensive.

### Survey of Puget Sound Residential Siding Market

The survey results indicate that the following four residential siding materials have a significant presence in the Puget Sound market: OSB, hardboard, plywood, and WRC, Table 1. Many respondents indicated that their wood fiber-cement residential siding use has increased substantially over the past five years. This may be the result of the increased promotional effort on the part of a major producer of wood fiber-cement siding in the U.S. West.

Table 2. Percent of respondents who indicated that each siding material was appropriate for use on new homes in different selling price ranges.

Siding Material	Selling price range of the new home:					
	Under \$100,000	\$100,000 - \$149,999	\$150,000 - \$199,999	\$200,000 - \$249,999	\$250,000 - \$400,000	Over \$400,000
Brick	3.0	7.3	26.0	52.1	65.6	9.8
Stucco	0.0	0.0	5.2	34.4	68.8	67.7
Western Red Cedar	2.1	10.4	28.1	42.7	49.0	47.9
Cedar Shakes/Shingles	1.0	1.0	18.8	36.5	41.7	38.5
Oriented Strandboard	49.0	66.7	61.5	56.3	37.5	25.0
Redwood	0.0	2.1	2.1	8.3	20.8	24.0
Wood Fiber-Cement	11.5	17.7	20.8	22.9	14.6	11.5
Hardboard	29.1	29.1	22.9	18.8	12.5	10.4
Spruce	2.1	7.3	9.4	7.3	5.2	6.3
Vinyl	22.9	27.1	16.7	8.3	3.0	4.2
Plywood	51.0	38.5	13.5	4.2	2.1	1.0
Aluminum	11.5	10.4	2.1	2.1	1.0	1.0

The Puget Sound market represents a disproportionately large share of the national market for OSB siding. Two factors may be working either independently or together in creating this disproportionate market presence. First, OSB residential siding manufacturers may be specifically targeting the Puget

Sound market through promotional efforts due to distribution advantages associated with the market and its port access. Second, builders may simply prefer OSB residential siding due to its ease of installation and their preference for a material that has the "curb appearance" of real wood.

While WRC siding use is directly related to the selling price of the new home, the effect was found to be not significant. In fact, WRC siding occurs in nearly equal proportions (square foot basis) on new homes across all price ranges. This suggests that WRC is more readily accepted by contractors building new lower-end homes. This trend conflicts with builders' perception that WRC siding is a more appropriate product for high end houses (over \$200,000) than for low-end houses, Table 2. This shift in use seems to indicate that quality problems and low prices are actually undermining WRC's competitive position in the market.

The study results indicate that WRC manufacturers should make a concerted effort to upgrade the quality of their products. In particular, the survey results suggest that manufacturers address issues dealing with product consistency and uniformity. Improving WRC siding's product consistency and uniformity, or creating a high-grade branded WRC residential siding product, will improve the perception that builders have of WRC's image and appearance. In return, an improved, high-end WRC residential siding product may warrant a premium price in the marketplace.

Promotional efforts should focus on elevating builders' poor perceptions of WRC in terms of its cost and maintenance. For example, exterior siding products can be pre-finished with a high grade stain or primer using a reliable and consistent application process. In addition, exterior siding products should be grade-consistent and not shipped in a green condition. Third, promotional literature addressing long-term maintenance issues should be developed. This literature should accompany every lift of WRC sold and should discuss the proper method of installing WRC residential siding.

Finally, WRC siding manufacturers, wholesalers, and retailers should make a strong effort to avoid price competition. The results of this study indicate that price competition conflicts with builders' perception of a residential siding product's quality in terms of both image and appearance. This conflict between low price and a high quality image has likely decreased its demand among high-end home builders while at the same time increased demand among lower-end home builders. Ironically, this shift in the market demand from high-end homes to low-end homes, while increasing overall sales of WRC siding, has resulted in lower overall profit margins for WRC siding manufacturers, wholesalers, and retailers.