

The Upside of Downsizing :: Plasma Television Packaging

The challenge of designing packaging with expandable polystyrene (EPS), a one-drop foam, is that it is not engineered to withstand multiple drops. In today's rigorous shipping environment, this deficiency can lead to packaging failure – jeopardizing damage-sensitive goods. To reduce this problem, designers often over-engineer packaging by increasing the amount of EPS in the design.

ARCEL[®] resin is a foam solution that enables a smaller package design without sacrificing the protective properties found with traditional foam packaging. It is designed to withstand multiple drops commonly experienced in today's shipping environment. Along with enhanced protection, the smaller package design enables the shipment of additional units on each truck or ocean container, resulting in significant freight savings. In this example, ARCEL resin reduces a plasma television package size by more than 50%, which in turn increases the amount of units per shipping container by more than 50%.



42" Plasma Television packaged in EPS

Estimated Savings

- » Cushion cost increase by 5%
- » Freight costs decrease by 55%
- » Corrugate box cost decreases by 37%
- » Total savings for 100,000 units shipped: **\$3.9 million**

About ARCEL Advanced Foam Resin

ARCEL is a high-performance foam packaging resin that provides superb cushioning for damage sensitive goods such as plasma televisions, furniture and appliances.

The Upside to Downsizing with ARCEL resin is that a smaller package design increases efficiency – making it possible to fit additional boxes in a delivery truck. Loading more boxes in a truck in turn reduces the number of shipments – resulting in significant fuel savings and reduced emissions. Many brand owners have realized significant cube optimization by specifying ARCEL resin.

Cost Comparison: ARCEL Resin vs. Traditional Foam 42" Plasma Television Packaging

	Traditional Foam	ARCEL Resin Solution	Improvement
Box Dimensions			
Length (inches)	54.5	52.5	2
Width (inches)	20	9	11
Height (inches)	34	31.75	2.25
Units/40 ft. Container	64	160	96
Units/48ft. Trailer	92	200	108
Estimated Costs			
Corrugate Cost	\$6.05	\$3.80	\$2.25
Foam Costs			(\$0.25)
Shanghai to Long Beach	\$46.88	\$18.75	\$28.13
Long Beach to Chicago	\$16.30	\$7.75	\$8.80
Total Savings			\$38.93

www.novachemicals.com :: www.ARCELresins.com :: arcel@novachem.com

NOVA Chemicals Inc.
U.S. Operating Center
 1550 Coraopolis Heights Road
 Moon Township, PA 15108
 USA
 Phone: +1.412.490.4979
 Fax: +1.412.490.4325

NOVA Chemicals (International) SA
Asian Operating Center
 Level 20, The Center
 989 Changle Road
 Shanghai 200031 China
 Phone: +86 21 5117 5418
 Fax: +86 21 5117 5421

NOVA Chemicals (International) SA
Singapore Sales Office
 Level 15, Prudential Tower
 30 Cecil Street
 Singapore 049712
 Phone: +65 62 24 8807
 Fax: +65 62 24 1877

NOVA Innovene International SA
Exclusive European ARCEL Distributor
 Avenue de la Gare
 1700 Fribourg
 Switzerland
 Phone: +41 26 426 5656
 Fax: +41 26 426 5657