

*T-PSI's*  
*PLASTIC MARKET MONTHLY*

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**LLDPE**  
**SEPTEMBER 2002**

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**US & Canada Prices/Margins**  
(Cents per Pound)

	Jun	Jul	Aug
Ethylene Contract	23.00	23.00	23.00
LLDPE Average <sup>(1)</sup>	38.10	40.10	41.44
Butene Liner			35.0 - 42.5
Hexene Liner			36.5 - 44.0
High Strength Hexene			40.0 - 46.0
High Strength Octene			44.0 - 53.0
Cast Film			38.0 - 46.5
Rotomolding			37.5 - 54.0
Injection Molding & Blow Molding			40.0 - 50.0
Off-Grade & Wide Spec			28.0 - 36.0
Producer's Gross Margin <sup>(2)</sup>	14.41	16.41	17.75

**Estimated Capacity Utilization**

	May	2002 YTD	2001 YTD	
Resin Producer without Swing Capacity <sup>(3)</sup>	91%	84%	70%	↑
Resin Producer with Swing Capacity <sup>(3)</sup>	119%	109%	90%	↑
Resin Consumer <sup>(3)</sup>	110%	112%	89%	↑

**US & Canada LLDPE Resin Producer Statistics**  
(Millions of Pounds)

	May	2002 YTD	2001 YTD	
Production <sup>(4)</sup>	1,173	5,393	4,466	↑
Domestic Sales <sup>(4)</sup>	939	4,804	3,807	↑
Total Sales <sup>(4)</sup>	1,090	5,479	4,550	↑
Inventory Change	83	-86	-84	

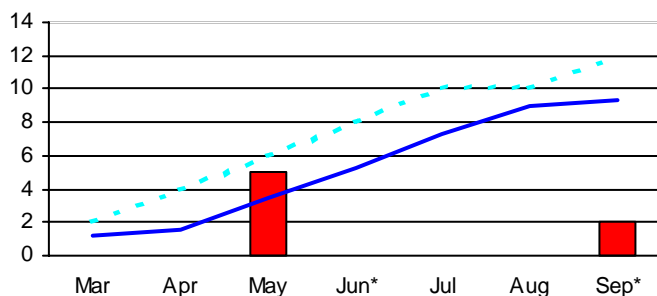
(1) Volume weighted average of price paid by consumers for all grades; formerly referred to as realizations

(2) Excludes other variable costs beyond feedstock cost

(3) Source: Survey by T-PSI & APC statistics

(4) Source: APC; all sales line items include sales of imports

**Producers vs Converters Price Survey**  
(cents per pound delta)



\* The Jun 1 price increase announcement of 5 cts/lb has been moved to Sept 1 with a 3 cts/lb TVA

Price Increase Announced

Producer's 6-Mo Accumulated Delta

Converter's 6-Mo Accumulated Delta

**Prices Move Higher in August**

LLDPE resin prices increased, on average, 1.34 cts/lb for August contracts. August marks the seventh consecutive month in which LLDPE prices have moved higher. Among all the published grades, high strength hexene, rotomolding, and off-grade/wide-spec resins experienced the largest upward price movement. Each respective grade increased, on a volume weighted basis, by at least 2.0 cts/lb. The balance of the LLDPE grades also moved higher but by little more than a penny.

PMM projections indicate a slowdown in upward price momentum in September. Prices for September are forecast to increase about 0.7 cts/lb. It's important to note that off-grade/wide-spec material is expected to increase only 0.2 ct/lb. As off-grade resin is a good indicator of future price movements, it seems clear that the LLDPE market is beginning to slow down.

See page six for detailed pricing and projections.

**TVA Indicates PE Market May be Weakening**

Two major producers announced a temporary voluntary allowance (TVA) of 3 cts/lb in early September and other majors followed. This means that the 5 cts/lb price increase that was originally slated for June 1<sup>st</sup> not only moved to September 1<sup>st</sup> but was also reduced to 2 cts/lb.

This adjustment by producers brings the producer-converter price delta, the difference between what producers say has gone through to the market and what converters are actually paying, to a fractional number for August, as shown by the graph at left. As of mid-September we're hearing that producers expect the full 2 cents to go through immediately, yet converters projections show less than a penny increase for September. If that is the case, it may mean that some converters are expecting to negotiate 90-day price protection.

The remaining 3.0 cents which was TVA'd remains viable if market fundamentals change and could be activated at any time.

**Producers Still Eyeing Higher Prices**

From the Producers versus Converters Price Survey below, you can see that producer's feel that about 11.0-11.5 cts/lb has gone into effect, but based on actual deliveries to converters, buyers show 9.0 cts/lb on a volume weighted average basis. The difference may be explained by price protection of 30-60 days by over half of our survey base and also because the PMM reports prices of product delivered to the converter as opposed to product shipped by the producer. See the bottom of page six for a more detailed explanation.

**Price Protection Could Hurt Sept Nomination**

The September 2.0 cts/lb producer price announcement will probably start hitting buyers in October. Of course, buyers who see some of the increase would be those whose price protection unfortunately expired at the end of September. According to our data, nearly 50% of LLDPE resin buyers have already secured price protection. This could indicate that the September increase may not be realized until late in the fourth quarter, if then.

**Demand Seen Loosing Ground in August**

The latest information regarding production and demand statistics from the American Plastic Council (APC) is from May 2002. However, converters and market observers suggested that demand has peaked for the year. They also expected demand to begin to fall through the end of Q3 into Q4.

(Continued on page 3)

(Continued from page 2)

**Inventories Stable in August**

The Days of Supply graph suggests that converter inventory levels remained fairly stable in August. Inventories dropped by just one day of supply. Some converters reported that their resin inventories actually increased slightly during the July-August timeframe due to a seasonal slowdown in finished goods demand.

LLDPE resin deliveries increased slightly in August. This could be a sign that converters are attempting to pre-buy ahead of the September 2.0 cts/lb nomination. An increase in the number of price protected buyers combined with the jump in August deliveries may allow converters the flexibility to avoid any further price increases. Of course, this all depends on individual circumstances and relative negotiating power.

**LLDPE European Prices Decreasing**

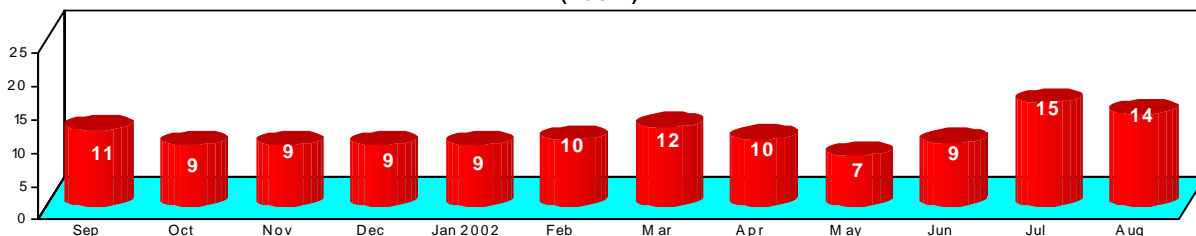
Linear Low prices in Europe decreased in late August. Prices were anywhere from \$790 – 820/ton for Butene Film. Supply was reported as decreasing, as some facilities in Europe were shut down for repairs.

A price increase announcement was issued by major producers for the month of September. The announcement is for an increase of Euros 50/ton for PE grades.

**August LLDPE Asian Prices On The Hike**

Prices of LLDPE in Asia increased in August to levels of \$545 – 580/ton. Prices in the region were high due to an increase in oil crude prices and naphtha.

**Days of Supply at Converters<sup>(6)</sup>**  
**(Resin)**



(6) Days of Supply (DOS) replaces Inventory Days from previous issues. DOS is the converter's volume weighted average days of resin supply, in inventory, at month end. This figure takes into account plant throughput and days of production.

**Top Importing Countries to US**  
**(Millions of Pounds) <sup>(5)</sup>**

	Jun	YTD
Canada	67	417
Sweden	2	3
Mexico	0.4	2
Japan	0.2	2
Belgium	0.1	1
Netherlands	0.1	0.2
Taiwan	0.01	0.01

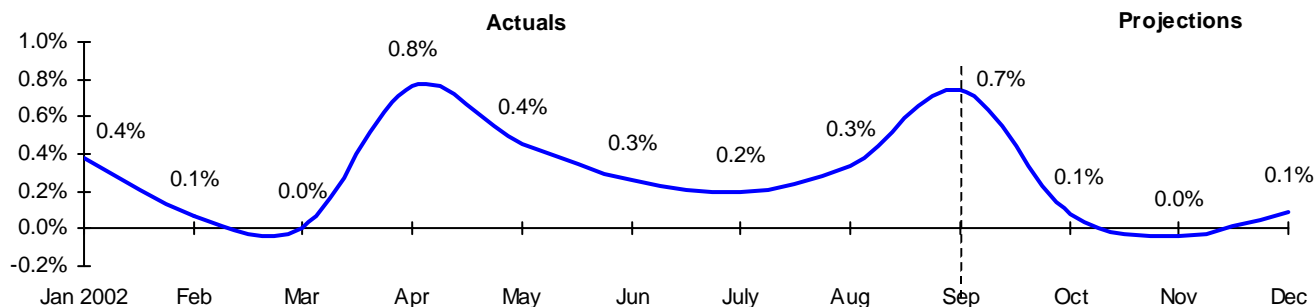
**Top Countries for US Exports**  
**(Millions of Pounds) <sup>(5)</sup>**

	Jun	YTD
Mexico	29	215
Canada	17	91
Brazil	5	10
Guatemala	4	22
Ecuador	3	15
Costa Rica	3	23
El Salvador	3	11

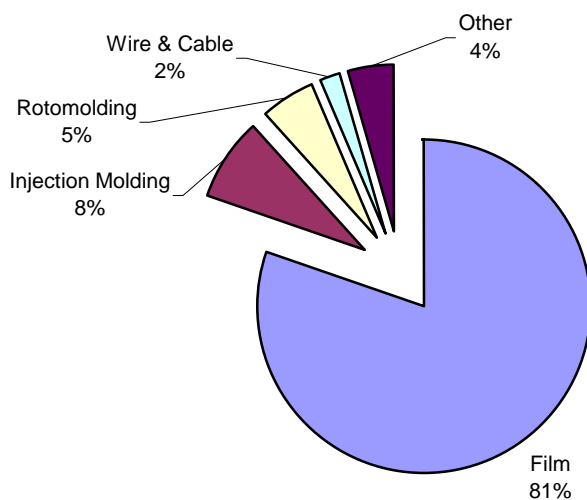
**Net Exports**  
**(Millions of Pounds) <sup>(5)</sup>**

	Jun	YTD	2001 Total
U.S. Exports	85	527	936
Imports to U.S.	70	427	657
Net Exports	15	100	278

**Converters Change in Deliveries from Previous Month**



MARKET MIX BY PRIMARY CONVERSION PROCESS



SUPPLIER MARKET MIX BY PRIMARY CONVERSION PROCESS

	Film	Injection Molding	Roto-molding	Wire & Cable	Other	Totals
Basell	100.0%	0.0%	0.0%	0.0%	0.0%	100.0%
Chevron Phillips	58.1%	19.4%	0.1%	0.0%	22.3%	100.0%
Compounder	36.4%	0.0%	58.5%	4.6%	0.6%	100.0%
Distributors/Brokers	70.9%	7.3%	16.0%	0.3%	5.5%	100.0%
Dow Chemical	87.7%	6.3%	0.0%	3.3%	2.7%	100.0%
Eastman Chemical	100.0%	0.0%	0.0%	0.0%	0.0%	100.0%
Equistar Chemical	73.5%	4.6%	14.8%	6.9%	0.2%	100.0%
ExxonMobil/Imperial	79.3%	9.8%	7.0%	0.5%	3.4%	100.0%
Formosa	48.2%	49.4%	2.4%	0.0%	0.0%	100.0%
Huntsman	85.3%	8.1%	0.0%	0.0%	6.5%	100.0%
Nova Chemicals	80.0%	6.3%	10.8%	0.5%	2.4%	100.0%
Unspecified	81.0%	6.4%	2.3%	0.7%	9.7%	100.0%
Westlake Polymers	91.2%	0.0%	0.0%	0.0%	8.8%	100.0%
Average Supplier	80.3%	8.1%	5.3%	2.0%	4.4%	100.0%

Source: T-PSI Market Share Report

SUPPLIER MARKET SHARE BY PRIMARY CONVERSION PROCESS

	Film	Injection Molding	Roto-molding	Wire & Cable	Other	Totals
Basell	2.7%	0.0%	0.0%	0.0%	0.0%	2.1%
Chevron Phillips	4.9%	16.3%	0.1%	0.0%	34.2%	6.8%
Compounder	0.2%	0.0%	5.4%	1.1%	0.1%	0.5%
Distributors/Brokers	3.7%	3.8%	12.8%	0.7%	5.3%	4.2%
Dow Chemical	36.0%	25.8%	0.2%	54.9%	20.1%	33.0%
Eastman Chemical	2.1%	0.0%	0.0%	0.0%	0.0%	1.7%
Equistar Chemical	8.3%	5.1%	25.5%	32.0%	0.5%	9.0%
ExxonMobil/Imperial	23.4%	28.8%	31.6%	6.5%	18.2%	23.7%
Formosa	0.7%	7.0%	0.5%	0.0%	0.0%	1.1%
Huntsman	0.3%	0.3%	0.0%	0.0%	0.4%	0.3%
Nova Chemicals	10.2%	7.9%	21.1%	2.6%	5.5%	10.2%
Unspecified	6.3%	5.0%	2.7%	2.1%	13.7%	6.3%
Westlake Polymers	1.1%	0.0%	0.0%	0.0%	2.0%	1.0%
Totals	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Source: T-PSI Market Share Report

ECONOMIC TRENDS

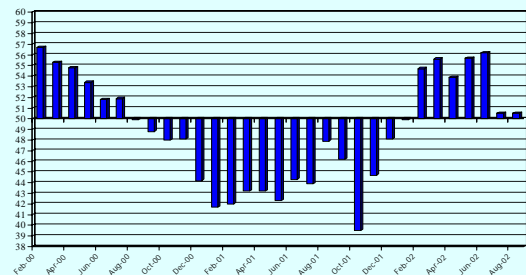
The U.S. economy continues to show improvement albeit at a slower pace than most analysts expected. The Commerce Department recently reported that the preliminary estimate for second quarter GDP remained stable at a 1.1% annual rate. This was a marked deceleration from the 5.0% growth rate achieved in the first quarter of 2002. The slowdown in GDP was largely due to a decrease in private inventory investment and in personal consumption expenditures. A sharp increase in imports, which are a subtraction in the calculation of GDP, also helped slow second quarter growth.

The Federal Reserve decided to hold interest rates steady at its August meeting. The Federal Funds Rate remains at 1.75%. Some analysts predicted an interest rate cut in August, but the Fed defended its decision by pointing to the underlying strength of the economy. Low interest rates have helped support the economic recovery by encouraging consumers to take advantage of low mortgage rates and zero-percent automobile financing. The evidence is clear that low interest rates are driving much of the current economic growth with new homes sales in July up 6.7% and auto sales increasing 3.3% in the same time period.

Although GDP growth continues to stagnate and interest rates are at historic lows, inflation remains subdued. The Consumer Price Index (CPI) increased only marginally in July rising 0.1%. The GDP Chained Price Index, the broadest measure of inflation, also increased in the second quarter but only slightly. Low inflation rates are to be expected as price deflation historically coincides with the first year of an economic recovery.

The economic outlook for the rest of the year is mixed. After a sharp drop in July, the August ISM manufacturing index remained unchanged at 50.5. The reading of 50.5 implies the manufacturing sector is still expanding, but the slow down in August has some economists debating the issue of a double-dip recession. Even though some areas of weakness persist, most economists believe the current growth of the economy is sustainable and should continue to improve into 2003.

Purchasing Manager's Index  
Expansion & Contraction of US Manufacturing



Source: Institute for Supply Management™, [www.ism.ws](http://www.ism.ws)

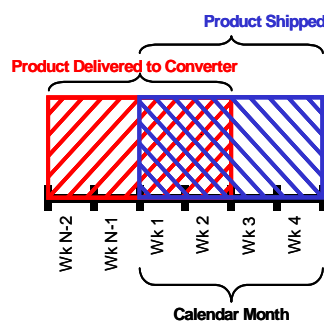
Key Economic Indicators

GDP, Annualized Growth Rate	Q2	1.1%	
Capacity Utilization, US Manufacturing	Jul	76.1%	↑ 0.1%
Housing Starts (millions)	Jul	1.649	↓ 2.7%
Building Permits (millions)	Jul	1.698	↓ 0.5%
Unemployment Rate	Aug	5.7%	↓ 0.2%
Prime Rate	Aug	4.75%	↔ 0.0%
Consumer Price Index (1984=100)	Jul	180.1	↑ 0.1%
Industrial Production Index (1992=100)	Jul	140.7	↑ 0.2%
Producer Price Index (1982=100)	Jul	138.9	↓ 0.2%

Source: US Government

	Converter Actuals				Delta		Converter Projections
	May	Jun	Jul	Aug	Current Month	6 Mo's To Date	Sep
<b>Butene Liner</b> [Grade # 122111]							
90th Percentile	39.6	40.1	41.1	<b>42.5</b>	1.4	3.5	43.0
Vol Wtd Avg	32.3	34.8	35.8	<b>37.2</b>	1.4	7.2	38.0
10th Percentile	29.0	31.5	33.0	<b>35.0</b>	2.0	7.2	36.0
<b>Hexene Liner</b> [Grade # 122112]							
90th Percentile	41.5	42.1	43.0	<b>44.0</b>	1.0	3.0	44.5
Vol Wtd Avg	34.5	35.5	37.6	<b>38.5</b>	0.9	6.0	40.0
10th Percentile	31.7	33.0	34.5	<b>36.5</b>	2.0	7.0	37.0
<b>High Strength Hexene</b> [Grade # 122114]							
90th Percentile	43.9	44.0	45.0	<b>46.0</b>	1.0	3.0	46.5
Vol Wtd Avg	37.8	39.4	40.4	<b>42.4</b>	2.0	5.7	43.0
10th Percentile	35.9	37.8	38.8	<b>40.0</b>	1.2	6.2	41.0
<b>High Strength Octene</b> [Grade # 122115]							
90th Percentile	50.4	51.5	52.5	<b>53.0</b>	0.5	3.0	53.5
Vol Wtd Avg	44.1	46.0	47.0	<b>48.0</b>	1.0	7.0	48.0
10th Percentile	39.2	41.6	43.1	<b>44.0</b>	0.9	6.9	44.5
<b>Cast Film</b> [Grade # 122121]							
90th Percentile	44.7	45.0	46.5	<b>46.5</b>	0.0	2.3	47.0
Vol Wtd Avg	35.9	37.0	39.3	<b>40.3</b>	1.0	7.2	41.0
10th Percentile	33.4	35.5	37.0	<b>38.0</b>	1.0	7.5	38.5
<b>Rotomolding</b> [Grade # 121400]							
90th Percentile	51.5	52.0	53.0	<b>54.0</b>	1.0	3.0	54.5
Vol Wtd Avg	33.7	35.0	36.1	<b>38.1</b>	2.0	6.0	39.6
10th Percentile	32.0	34.0	35.0	<b>37.5</b>	2.5	7.8	38.0
<b>Injection Molding &amp; Blow Molding</b> [Grade # s 121110, 121120, 121130, 121200]							
90th Percentile	47.6	49.0	50.0	<b>50.0</b>	0.0	3.0	50.5
Vol Wtd Avg	41.8	43.5	44.5	<b>45.6</b>	1.1	4.8	46.0
10th Percentile	35.3	38.0	39.5	<b>40.0</b>	0.5	6.0	41.0
<b>Off-Grade &amp; Wide-Spec</b> [Grade # 122900]							
90th Percentile	31.9	33.0	34.0	<b>36.0</b>	2.0	5.1	36.0
Vol Wtd Avg	25.7	26.7	28.7	<b>30.8</b>	2.1	7.3	31.0
10th Percentile	23.2	25.0	26.0	<b>28.0</b>	2.0	7.0	29.0

EXPLANATION OF MONTHLY PRICES



Prices are based on monthly survey of converters that subscribe to PMM. Converters fill in a data form for each grade; see last page of publication for sample data form and more details about methodology.

The Vol Wtd Avg price is weighted by delivered quantities while the 90th and 10th percentiles are not volume-weighted. Therefore, for contract purposes, we DO NOT recommend the use of the 10th or 90th percentile indexes.

Prices are for bulk quantities of prime material delivered to converters and received during the calendar month by either rail car or truck. "Product delivered" to converters will vary from "product shipped" by a supplier due to transit time. The following example illustrates differences that may occur between the product received by converters and product shipped by producers.

For illustrative purposes only, transit time is two weeks in this example and the calendar month is defined as weeks 1, 2, 3 & 4 in the diagram at left.

Shippers, represented in blue, tend to consider a month in terms of the volume shipped, the prices for each of those shipments, and the resultant average price generated. Buyers, represented in red, based on PMM's methodology, define a month as the product received during a calendar month. Given the two week transit time assumed for this example, a buyer would receive product shipped in weeks N-2, N-1, 1 and 2 during the calendar month. In relatively stable markets this creates no issue. In rapidly rising or falling markets however, this difference in time buckets can cause misunderstanding.

**To be Flat or Not to be Flat ? ...that is the Question**

The majority of the market has not settled on an ethylene contract price for August. According to our sources, only one buyer settled a contract flat from July. They expect that they may experience an increase of 2.0 cts/lb in September. This isolated case, however does not mean that an agreement is being reached at the contract level. In fact, another major buyer mentioned that no one wants to negotiate right now as both suppliers and buyers are hoping that the market will dictate a move in their favor.

Presently, availability of supply and spot prices as low as 16.0 cts/lb probably point to a flat settlement for August. September's ethylene contract price is still very much in question. While major producers are pushing for a 2.0 cts/lb increase, converters are looking for a decrease. Producers may not have much of a case with cash costs remaining about the same since May and natural gas prices dropping in early September from their August price levels.

**Ethylene Spot Re-Appearing in the Picture**

Spot ethylene is more available than last month. Trades were reported in the 16.0 - 17.0 cts/lb range in late August and early September. With spot prices moving down, there is pressure to keep contract prices flat or lower them.

**Natural Gas Price Fluctuates**

During the last weeks of August, the natural gas price rose to \$3.68 per MMBtu on the NYMEX, but is returning to the \$3.00 per MMBtu level in early September. Ethylene suppliers believe natural gas will move up overall in September.

The price roller coaster for natural gas is not steep, yet it has definitely been on the move throughout the first part of September and very late August, making price forecasting a tough task. We saw a surge in prices for the last weeks of August with a drop in early September. Henry Hub on the Gulf Coast was at \$3.20 - \$3.28 per MMBtu; the Pacific Northwest and the Northwest Pipeline at Sumas averaged \$2.80 per MMBtu and \$2.30; East coast prices at the New York - Zone 6 fell slightly to \$3.58 - \$3.64 per MMBtu; and Columbia Gas Transmission prices

**US & Canada Prices**

	June	July	Aug	Change
Ethylene Contract, cents/lb	23.00	23.00	not settled	↔
Ethylene Spot, cents/lb	20.0 - 20.5	17.5 - 18.5	16.0 - 17.0	↓
Ethane, cents/gallon	24.75	23.50	23.0 - 24.0	↔
Natural Gas, \$/MMBtu	3.20 - 3.60	2.80 - 2.95	3.10 - 3.68	↑
WTI Crude Oil, \$/Barrel	25.52	26.95	28.65	↑
Brent Crude Oil, \$/Barrel	23.63	25.69	26.81	↑
Arab Light Crude Oil, \$/Barrel	21.98	23.09	23.38	↑

moved down to \$3.35 - \$3.52 per MMBtu in the first ten days of Sep.

**Capacity Back in August**

August brought back all the ethylene capacity that has been shutdown for maintenance or repair over the last few months. Consequently, market supply is stable and is expected to remain constant unless unexpected shutdowns unfold.

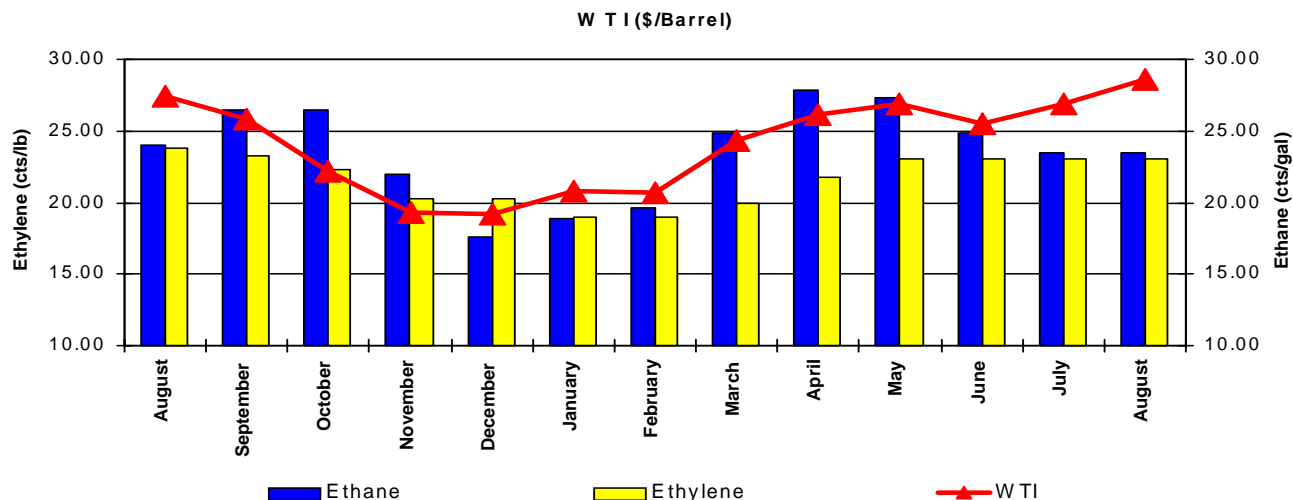
**Ethane Stable in August**

Ethane prices have not experienced major changes since last month. Prices for Ethane feedstock remained in the 23.0 - 24.0 cts/gal range, revealing a stable market with no immediate price increases perceived.

**International Ethylene Markets in Good Shape**

The Asian Ethylene market seems to be steady with shutdown capacities coming back on track. Market prices rose \$20/ton to an average of \$450/ton indicating increased demand in a well-supplied market. At the same time North West European markets had some operation improvement with capacities coming back on line. With supplies up, spot activity remained slow at levels of \$392 - 412/ton.

**PRICES: Ethylene Contract, Ethane, WTI**



<b>GRADES</b>	<b>TYPICAL SPECS</b>	<b>TYPICAL APPLICATIONS</b>	<b>GRADE #</b>
<b>LLDPE Film Blown</b>			
<i>Butene Liner</i>	1 - 2 MI .918 - .922 density	Trash Can Liners	122111
<i>Hexene Liner</i>	.8 - 2 MI	Trash Can Liners, Industrial .917 - .928 density Liners, Blending Component	122112
<i>Octene Liner</i>	.8 - 2 MI	Trash Can Liners, Industrial .917 - .928 density Liners, Blending Component	122113
<i>High Strength, Hexene</i>	.5 - 1 MI	Stretch Wrap, Specialty Packaging .917 - .921 density	122114
<i>High Strength, Octene</i>	.5 - 1 MI	Stretch Wrap, Specialty Packaging .917 - .921 density	122115
<b>LLDPE Film Cast</b>			
<i>Film</i>	2 - 6 MI .915 - .925 density	Stretch Wrap, Frozen Foods	122121
<i>Medium Density</i>	2 - 6 MI .926 - .941 density	Diaper Liners, Overwrap	122122
<i>Pipe</i>	.2 - 1 MI .930 - .945 density	Water & Gas Distribution Pipe	122200
<i>Profile &amp; Sheet</i>	.2 - 1.5 MI .920 - .940 density	Pond Liners, Cable Conduit, Drip Irrigation Tube	122300
<b>Wire &amp; Cable</b>			
<i>Jacketing</i>	.2 - .7 MI .920 - .930 density	Telephone Wire, Power Cable	122410
<i>Insulation</i>	.2 - .7 MI .920 - .930 density	Telephone Wire, Power Cable	122420
<i>Coating, Extrusion</i>	3 - 16 MI .915 - .935 density		122500
<b>Injection Molding</b>			121100
<i>High Flow</i>	85 - 140 MI .928 - .934 density	Lids	121110
<i>General Purpose</i>	26 - 80 MI .924 - .928 density	Housewares, Household Trash Cans, Toys	121120
<i>Industrial</i>	.7 - 25 MI .917 - .926 density	Trash Cans, Closures, Specialty Housewares	121130
<b>Blow Molding</b>			121200
	.5 - 1 MI .917 - .925 density	Rigid Liners, Squeeze Bottles	
<b>Injection Blow Molding</b>			121300
	.5 - 2 MI .918 - .925 density	Small Bottles, Specialty Containers	
<b>Rotational Molding</b>			121400
	2.5 - 6 MI .934 - .941 density	Agricultural Tanks, Toys	
<b>Off-grade &amp; Wide-spec</b>			122900
		Molding and Extrusion Grades	

**METHODOLOGY**



The **Plastic Market Monthly (PMM)** is unique among resin market information and pricing services, in that it is the only service to obtain its information through a database of thermoplastic resin converters. All information, unless otherwise noted, is derived from a standardized survey of hundreds of converters conducted at the beginning of each month. In particular, the resin prices reported are those paid by converters for resin volumes that have been delivered during the calendar month (see Delivered Product section below); resin prices are not estimated nor are they list prices.

Each month the **PMM** receives hundreds of data forms from participating subscribers (resin converters) throughout North America. No other chemical or plastic publication collects such specific data from so many market participants. In some of the 60+ grades published, **PMM's** data represent more than 70% of the market. This method of collecting data enables subscribers to evaluate (1) pricing in the marketplace, (2) days of supply at converting sites and (3) converters' anticipated short-term demand.

**DATA FORM**

Participants fill in data forms for each grade that they purchase, as shown in the example at right. Converters provide regular & spot supply delivered, volume weighted average price paid, expected deliveries over the next 4 months and expected average prices for the following months; resin usage, end-of-month resin inventory and days of production are also provided to generate Days of Supply. Data is submitted to **PMM** via fax or it's website. All data is verified and checked as it arrives; copies of invoices are requested when necessary and on a random basis.

The **PMM** is committed to the highest level of security and maintains proprietary data collected on data forms according to its policies and procedures.

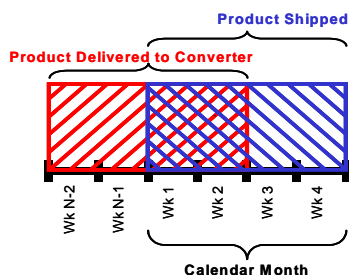
**PRICING BENCHMARKS**

The following are derived from data collected from hundreds of participating subscribers

- **90<sup>th</sup> Percentile:** A calculation to indicate the top of the price range; about 10% of our panelists are paying above this level. Not volume weighted.
- **Volume Weighted Average (Vol Wtd Avg):** A calculation of prices, weighted by resin purchased, then averaged.
- **10<sup>th</sup> Percentile:** A calculation to indicate the bottom of the price range; about 10% of our panelists are paying below this level. Not volume weighted.

**DELIVERED PRODUCT**

Prices reported on data forms and thus in the **PMM** are for bulk quantities of prime material delivered to converters and **received during the calendar month** by either rail car or truck. "Product delivered" to converters will vary from "product shipped" by a supplier due to transit time.



The diagram at left illustrates differences that may occur between the product received by converters and product shipped by producers. For illustrative purposes, transit time is two weeks in this example and the calendar month is defined as weeks 1, 2, 3 & 4 in the diagram at right.

**Shippers, represented in blue,** tend to consider a month in terms of: the volume shipped; the prices for each of those shipments; and the resultant average price generated. **Buyers, represented in red,** based on **PMM's** methodology, define a month as the product received during a calendar month. Given the two week transit time assumed for this example, a buyer would receive product shipped in weeks N-2, N-1, 1 and 2 during the calendar month. In relatively stable markets this creates no issue. In rapidly rising or falling markets however, this difference in time buckets can cause misunderstanding.

**REPORTS AVAILABLE**

All reports are published monthly on the 15th, unless a holiday or weekend occurs on the 15th in which case reports are published on the nearest working day. There are 8 reports to choose from with delivery via email or access via our website, [www.t-psi.com](http://www.t-psi.com).

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|----------------|-------|---------------------------|-------------|
| HDPE Molding   | LDPE  | Polypropylene Homopolymer | PVC         |
| HDPE Extrusion | LLDPE | Polypropylene Copolymer   | Polystyrene |

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