

CASE # 2b:**Drumming Up the Price****Commodity Type: Product – Plastic Drums, South Korea**

Kwan Park is a senior commodity manager of chemical packaging for Heavy Construct in Seoul, South Korea. He is in the process of purchasing plastic drums that hold important chemicals for their use in the field. Kwan is about to sit down with his supplier to discuss the proposal sent by Fritz Neumann of Leif Packaging. Fritz was unwilling to provide a cost breakdown upon initial request. Kwan emphasized the need to understand the costs in order to manage them, and upon a second request, Fritz sent a breakdown:

Materials	₩ 12,961
Conversion	₩ 11,839
Price	₩ 24,800

Before sitting down with Fritz, Kwan wanted to build a “should” cost model for plastic drums. He wanted to understand the breakdown Fritz sent in greater detail so that they could discuss it during their meeting. He found the type of plastic and the amount of raw material used from the internal stakeholder for this drum.

Plastic Material	HDPE 120 litre Plastic Drum
Material Specifications (weight used)	7 kg per drum

Leif Packaging is a global company manufacturing approximately 3,100,000 drums per year. The Korea plastic packaging plant manufactures 400,000 drums of which Heavy Construct plans to purchase 80,000 drums this upcoming year.

Obtain data from the Bank of Korea, Economic Statistics System (<http://ecos.bok.or.kr>) for the 2 tables below:

TABLE 1: 2021 Income Statement (C222 Plastic Product Manufacturing)

<u>Cost Element</u>	<i>(in Mil Won)</i>
Sales	
Cost of Sales	
Gross Profit/Loss	
Income or Loss Before Tax	

TABLE 2: 2021 Statement of Cost of Goods Manufactured (C222 Plastic Product Manufacturing)

<u>Cost Element</u>	<i>(in Mil Won)</i>
Material Cost	
Labor Cost	

Raw Material Pricing:

The price for High Density Polyethylene (HDPE) was obtained from the WTP Software. Note the prices are in U.S. dollars per pound

COMMODITY CHART DETAIL

Date Range: 31-03-2022 - 31-01-2023

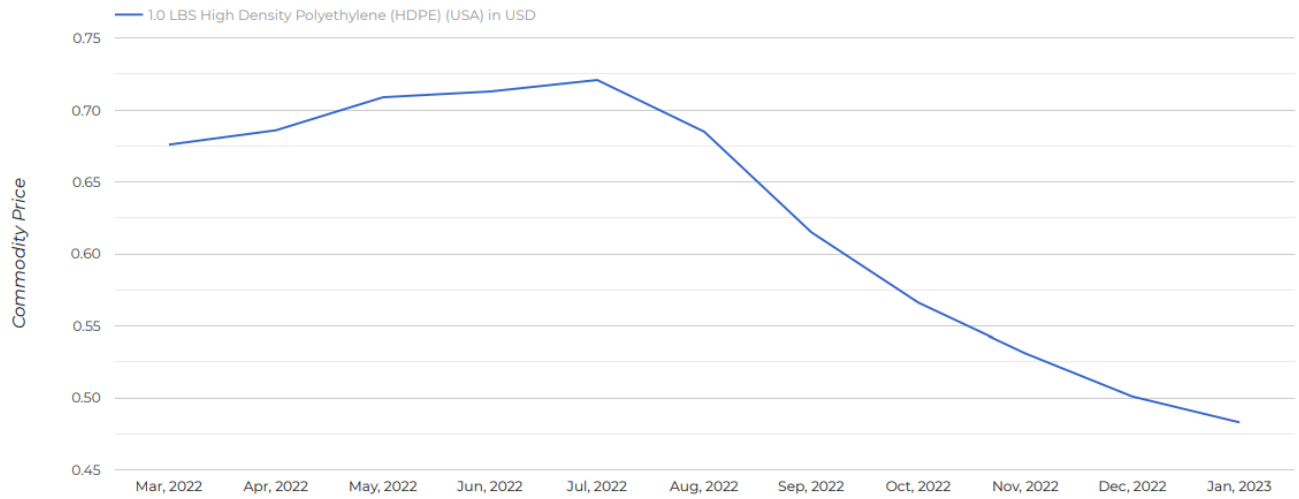
Currency: US Dollar

Weight Unit: Pounds

COMMODITIES / CURRENCIES / INDEXES

#	Commodity / Currency / Index	Per	Start	End	Average	Change	Price Change
1	High Density Polyethylene (HDPE) (USA)	1	0.677	0.484	0.626	-0.193	-28.6 %

PRICE DEVELOPMENT COMMODITIES AND CURRENCIES



Conversion Factors:

Obtain the conversion factors to convert U.S. Dollars to Korean Won and to convert Kilogram to Pounds

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To help Kwan calculate the industry averages for this project, please complete the following worksheets.

Worksheet 1: Calculation of Industry Cost Profile percentages

#	Element	
1	Cost of Goods Sold as % of Sales	%
2	Income before taxes as % of Sales	%
3	Calculate GSA & Other Expenses as % of Sales	%
4	Calculate Direct Materials as % of Sales	%
5	Calculate Direct Labor as % of Sales	%
6	Calculate Manufacturing Overhead as % of Sales	%

Worksheet 2: Summary of Industry Averages (% of Sales)

Element	%
DIRECT MATERIALS	
DIRECT LABOR	
MANUFACTURING OVERHEAD	
<i>Sub Total: Cost of Goods Sold</i>	
GENERAL, SELLING, ADMIN & OTHER EXPENSES	
PROFIT BEFORE TAXES	
Total Turnover (Sales)	100.00%

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Worksheet 3: Calculation of Direct Materials per drum

#	Specs	Result	
1	Price of HDPE plastic \$ / lb		
2	Convert HDPE to \$ / lb. to ₩ / lb.		
3	Convert HDPE ₩ / lb. to ₩ / kg		
4	Determine the # of kgs per drum		
5	Calculate ₩ / drum		

Worksheet 4: Calculation of Should Cost

Cost Element	Ind. Avg. (%)	₩ / drum
Direct Material (Worksheet 3, Line 5)	%	₩
Direct Labor	%	₩
Manufacturing Overhead	%	₩
<i>Subtotal: Cost of Goods Sold</i>	%	₩
General, Selling and Administration	%	₩
Profit Before Taxes	%	₩
PRICE (Should Cost)	100.00%	₩

Worksheet 5: Comparison with Proposal

Cost Element	Should Cost	Proposal	Proposal's Cost
Direct Material	₩	₩	Materials
Direct Labor	₩	₩	Conversion
Manufacturing Overhead	₩		
<i>Subtotal: Cost of Goods Sold</i>	₩		
General, Selling and Administration	₩		
Profit Before Taxes	₩		
PRICE	₩	₩	Price

