2018 3rd Quarter Earnings Release

Hyosung Chemical

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CONTENTS

2018 3rd Quarter consolidated earnings and past consolidated earnings presented in this presentation are based on K-IFRS accounting standards. Historical data is provided for comparison purposes.

Information in this presentation has not been audited nor reviewed yet, and thus, is subject to change during the audit or review. Forward looking statements have been made with consideration of current status of the business environment and are also subject to change according to changes in the business environment, as well as the company's strategy.

Ⅰ. Income Status

Quarterly Income Statement(Consolidated)

(Unit: Hundred Million KRW)

	2017.3Q	2018.2Q	2018.3Q	QoQ	YoY
Sales Revenue	4,261	4,424	*4,918*	494	657
Gross Profit	730	594	*580*	▲14	▲61
(Gross Profit Margin)	(16.7%)	(13.4%)	*(11.8%)*	(▲1.6%)	(▲3.3%)
Operating Profit	419	375	*363*	▲12	▲56
(Operating Profit Margin)	(9.8%)	(8.1%)	*(7.4%)*	(▲0.7%)	(▲2.5%)
Interest Expense	▲73	▲55	*▲90*	▲35	▲17
Loss due to Foreign Exchange/Derivates	▲47	▲162	*30*	192	77
Income before Tax	273	211	*291*	80	19
Net Income	233	177	*234*	57	1
EBITDA	859	783	*743*	▲40	▲116

Ⅱ. Financial Status

Statement of Financial Position(Consolidated)

(Unit: Hundred Million KRW)

	2018.6.1 (Beginning F/S)	2018.9.30 (Ending F/S)	Increase/ Decrease
Asset	16,877	16,721	▲156
Current Asset	5,258	4,754	▲504
Cash&Cash Equivalents	(2,759)	(1,331)	(▲1,428)
Non Current Asset	11,619	11,967	348
Liability	13,419	12,982	▲437
Current Liability	6,979	6,250	▲729
Non Current Liability	6,440	6,732	292
Equity	3,458	3,739	281
Borrowings	11,103	9,813	▲1,290
Net Borrowings	8,344	8,482	138
Debt Ratio	(388.1%)	(347.2%)	(▲40.9%)

Financial Ratios(Consolidated)

(Unit: %,Multiple)

	2018.9.30
ROE	26.4
ROA	5.9
이자보상배율	2.5
순차입금/EBITDA	3.1

Ⅲ. 2018 June ~ September Cash Flow Status

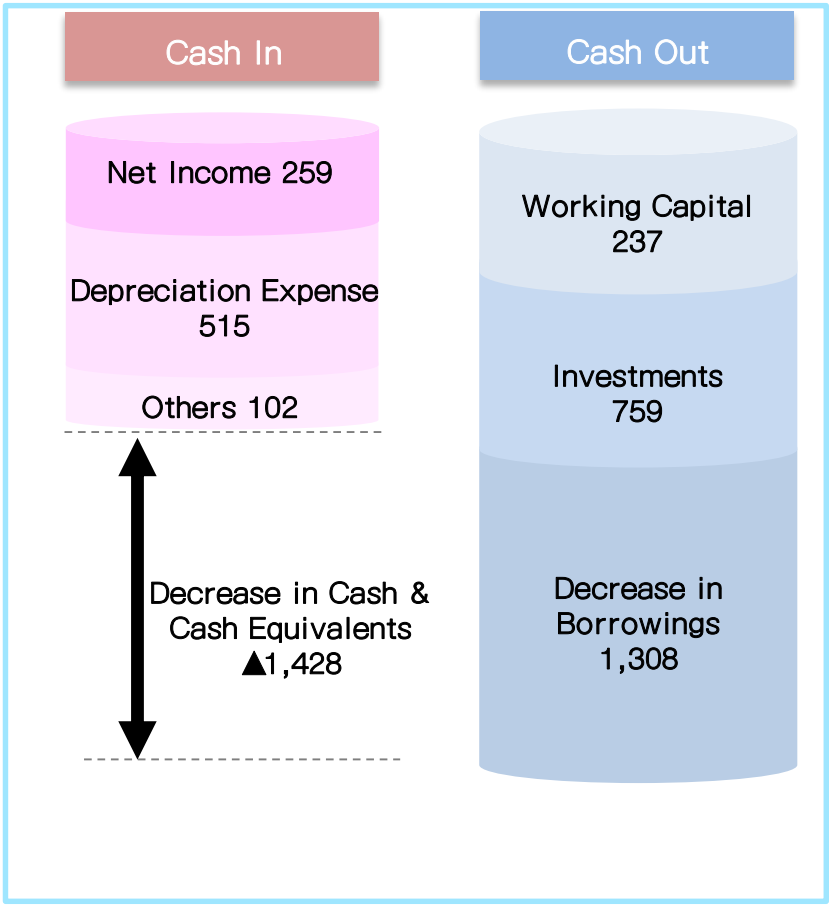
Cash Flow Statement

(Unit: Hundred Million KRW)

Cash Flow from Operations	**639**
Retained Earnings	774
・Net Income	259
・Depreciation Expense	515
A/R, Inventory, A/P, etc.	▲237
Others	102
Cash Flow from Investing	**▲759**
Acquisition of Tangible/Intangible Assets	▲759
Increase/Decrease in Investment Securities	-
Others	-
Cash Flow from Financing	**▲1,308**
Increase/Decrease in Borrowings	▲1,290
Decrease in Equity (Purchase of Treasury Stock)	▲18
Increase/Decrease in Cash	**▲1,428**

Net Cash Flow

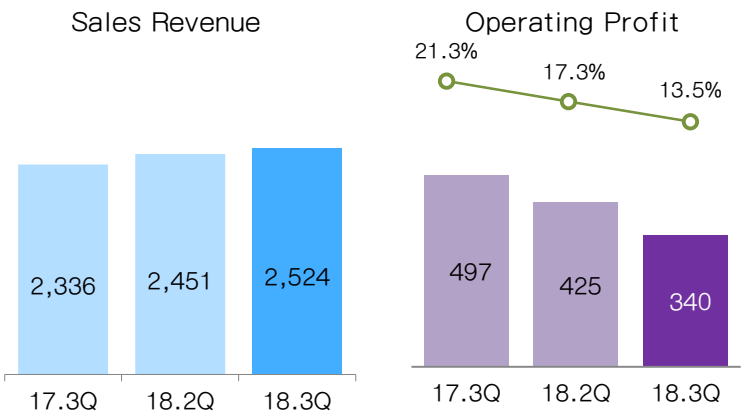
(Unit: Hundred Million KRW)



Ⅵ. Performance by Division

PP/DH_Expansion of Market Share by Establishing Additional Capa

[Unit: Hundred Million KRW]

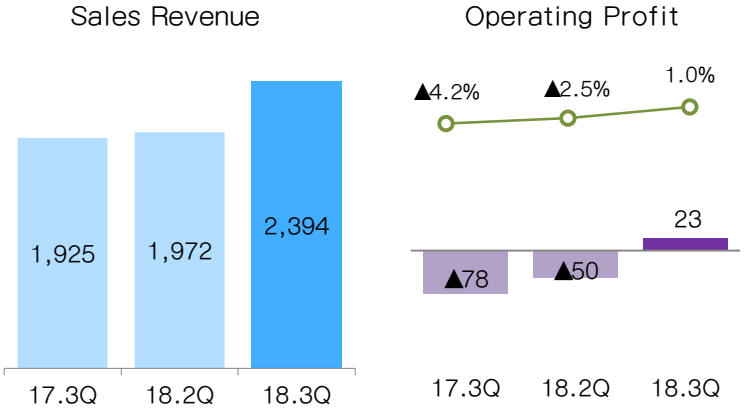


<PP/DH>

- *Despite the increase in sales due to increases in production facilities, sudden surges in raw material costs caused a decrease in profitability*
- *Expanding production capabilities through incorporation in Vietnam.*
- *Increase profitability by boosting competitiveness through differentiated product quality as well as decreased raw material costs.*
- *Increase profitability by stabilizing new products in the developmental stages of productions*

Others_Securing Profitability through Stabilization of Businesses

[Unit: Hundred Million KRW]



<NF_3>

- *Increase profitability through the reinforcement of process efficiency coupled with decreased raw material costs*
- *Expect a surge in sales in the 4th quarter due to an increase in the rate of operation by our customers*

<TPA>

- *Increased profitability due to an increase in selling price as a result of a rise in demand for the product*

<Film>

- *Decreased profitability due to delayed transfer of raw material costs to selling price*

<TAC Film>

- *Turnaround of operating profit due to strategic increases in sales (Acrylic Protective Film, etc.)*

Appendix. Quarterly Operating Profit

Quarterly Income Statement

		2017				
		1Q	2Q	3Q	4Q	Total
Revenue	PP/DH	1,980	2,294	2,336	2,250	8,860
	Others	1,895	1,870	1,925	2,123	7,813
Operating Profit	PP/DH	329	347	497	223	1,396
	Others	5	▲189	▲79	▲47	▲310
(Operating Profit Margin)	PP/DH	(16.6%)	(15.1%)	(21.3%)	(9.9%)	(15.8%)
	Others	(0.3%)	(▲10.1%)	(▲4.1%)	(▲2.2%)	(▲4.0%)

		2018				
		1Q	2Q	3Q	4Q	Total
Revenue	PP/DH	2,384	2,451	2,524		7,359
	Others	2,022	1,972	2,394		6,388
Operating Profit	PP/DH	241	425	340		1,006
	Others	▲51	▲50	23		▲78
(Operating Profit Margin)	PP/DH	(10.1%)	(17.3%)	(13.5%)		(13.7%)
	Others	(▲2.5%)	(▲2.5%)	(1.0%)		(▲1.3%)

Appendix. Introduction to PP Business

Types of PP (Produced by Hyosung Chemical)

Types	Characteristics	Usage
Homo Polymer	Propylene Monomer Polymer - Strong, Translucent, Heat-Resistant, Chemical-Resistant	Most processed products including flat, yarn, band, textile, film, etc.
Random Copolymer	Lower crystallization by reducing stereoregularity through copolymerization of Ethylene 2~6% or 1-Buene - Transparency, Low Melting Temperature	Products that require transparency and/or heat-seal - transparent containers (household containers),transparent sheets, low temperature sheet heat-seal.
Block Copolymer	Polymerization through the input of Ethylene as a Comonomer; improve shock resistant levels as a result of the production of PER(Propylene-Ethylene Rubber) - Improved Strength (Especially low temperature impact resistance)	Intruding and extruding materials that require shock resistance - Pipe, Sheet, Battery Case, Washing Machine, and other household items, as well as Crate Pallet and other industrial materials

Comparison to Plastic

	PP	HDPE	LDPE	PS	PVC
Pros	- Hypo density - Highly Resistant to Heat/Chemicals - Easily Recyclable - Harmless to Human Body	- Highly Resistant to Heat/Chemicals - Easily Recyclable - Harmless to Human Body	- Highly Resistant to Heat/Chemicals - Easily Recyclable - Harmless to Human Body	-Superior strength -Transparency	-Transparency -Direct Extrusion -Strong with electricity
Cons	Lacks Shock Resistance	Lacks Transparency	-Lacks heat-resistance -Fragile	Lacks heat / chemical / impact resistance	Non-ecofriendly, lacks heat resistance, lack chemical resistance, harmful to human body

Appendix. Introduction to PP Business

PPR(Polypropylene Random Corpolymer)

[PPR' s Advantages]

During the last decades, traditional metal pipes have been replaced by plastic pipes

- Driving forces of this change are lower prices, better sanitation, and environmental concerns.
- Among other plastic materials, PP-R pipe became most widely used for hot water systems due to its good quality aspects and advantages in installation as well as reasonable economics
- Demand for PP-R pipes has increased rapidly not only in Europe, but also in the Middle East and China
- PVC , one of the most widely used materials in manufacturing pipes, is being replaced by PE and PP for environmental reasons.

[Piping for House]

[Underfloor Heating]

[Radiator Pipes]

[Industrial Pipes]

Appendix. Introduction to PP Business

HPPB(High Isotactic Polypropylene Block Copolymer)

High Performance Polypropylene for PP-B Pipes

- By Hyosung own unique polypropylene block copolymer technology, HPPB high modulus grades offers full satisfaction to the pipe industry's demands for higher speed and easy production of pipes, and easy installation at work place with extraordinary long service life
- HPPB materials have been developed for non-pressure sewerage and industrial systems to improve the performance of solid and multi wall pipes for underground.

Hyosung HPPB offers

- Stiffness
- Corrosion and Chemical Resistance
- Impact, Abrasion and Stress Crack Resistance at low temperatures
- Flexibility and Structural integrity to accommodate ground movements without breaking
- High temperature resistance at 60℃ (Short term up to 90℃)

Especially, Hyosung HPPB materials introduce you high modulus (PP-HM) grade HB242P for

- Improved stiffness/Impact property balance
- Low pipe weight per meter
- Increased pipe design freedom
- Safer pipe handling and easier installation at the trench
- Long-term in-service durability

Appendix. Introduction to PP Business

Other PP Product Uses

Medical PP

- Suitable as a raw material for medical vials and syringes, Hyosung Chemical's medical PP provides excellent productivity, heat resistance, transparency and excellent physical properties.

PP for Transparent Containers

- TOPILENE® R301, R601, R701, R801, and R901 are intended for transparent containers and are specially designed to have good processability and excellent transparency along with well-balanced physical properties. These products meet the U.S. Food and Drug Administration(FDA)'s regulation 21 CFR 177.1520 and are phthalate-free.

PP for Special Film

- Hyosung Chemical's PP for special films performs excellently in the sterilization process of retort thanks to its excellent heat resistance properties. Used for protective films for LCDs and other industrial materials, it is a high quality material boasting excellent appearance and excellent film moldability.

PP for Compounding

- TOPILENE® RTPO is thermoplastic polyolefin(TPO) produced directly in an reactor and has higher impact resistance than general block products. TOPILENE® HCPP is a product that has significantly increased rigidity due to its high crystallinity, which has been attained by increasing stereoregularity.

PP for Heat Resistant Appliances

- TOPILENE® HJ801R, J801R, and HJ800R products have been developed for heat resistant of small home appliances. These products boast excellent long-term heat resistance and have been UL746B certified.(RTI 120 °C).

PP for Caps

- TOPILENE® HJ541CP has been exclusively designed to be used for the caps of plastic containers. Thanks to its excellent strength and molding workability, this product is highly suitable to be used for caps and can be both compression molded and injection molded.

Appendix. Introduction to PP Business

PP Demand Expectations(Widely Used PP Standard)

PP(Thousand Ton)	Supply and Demand	2016	2021	CAGR ('16-'21)
Global	Capacity	74,522	93,451	4.6%
	Production	66,960	83,722	4.6%
	Demand	66,951	83,722	4.6%
	Production - Demand	9	0	
Southeast Asia	Capacity	5,361	7,181	6.0%
	Production	4,839	6,475	6.0%
	Demand	5,483	7,039	5.1%
	Production - Demand	▲644	▲564	
Vietnam	Capacity	150	520	28.2%
	Production	138	479	28.3%
	Demand	1,072	1,559	7.8%
	Production - Demand	▲934	▲1,080	

Appendix. Flow of Raw Material Costs / Selling Price

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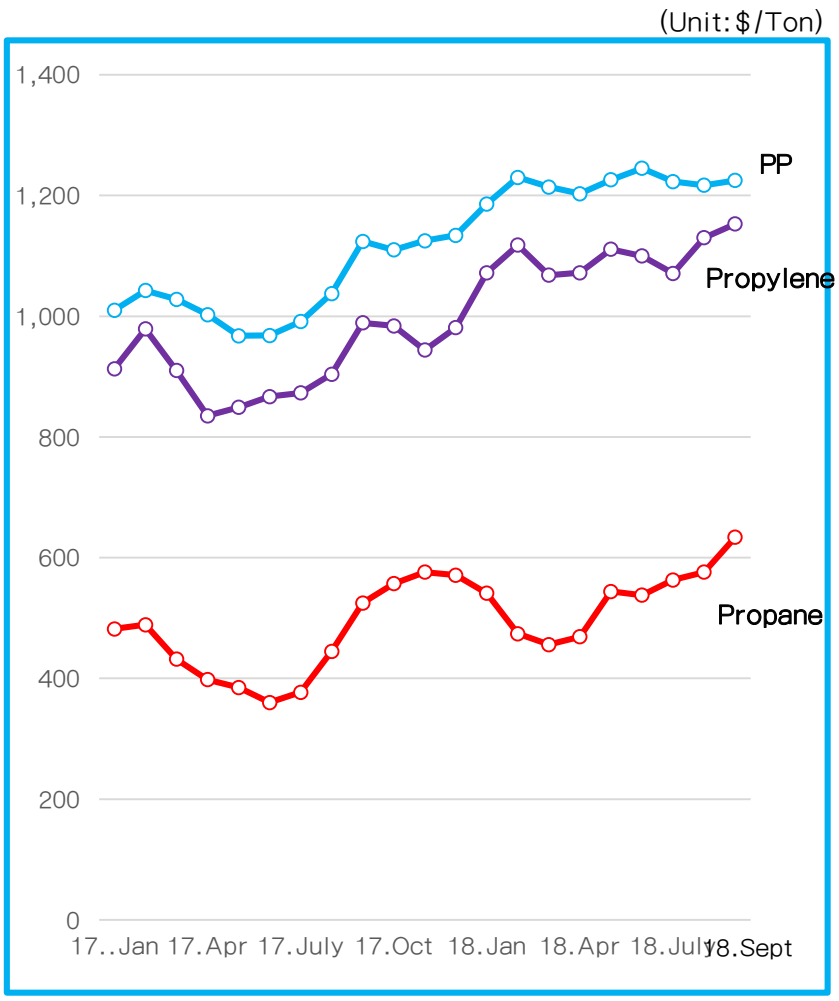
PP-Propane



PX-TPA