



Westlake  
Chemical



# Westlake Chemical Corporation

Second Quarter 2021

# Westlake Chemical Corporation

A Leading Integrated Chemicals and Building Materials Company



**Net Sales**

**\$9,080 Million**

**EBITDA<sup>(1,2)</sup>**

**\$2,158 Million**

**Net Income<sup>(3)</sup>**

**\$938 Million**



(TTM 2Q 2021)

**Our mission is to create long term value with a risk adjusted return approach.**

## **Vinyls** (TTM 2Q 2021)

**\$1,522 million EBITDA<sup>(1)</sup>**

69% of total EBITDA<sup>(4)</sup>

## **Olefins** (TTM 2Q 2021)

**\$676 million EBITDA<sup>(1)</sup>**

31% of total EBITDA<sup>(4)</sup>

### **Our Mission:**

- Profitable bottom line growth.
- In businesses we understand.
- Globally in areas we can gain an edge.
- In a disciplined and opportunistic manner.

### **Strategic Action Update:**

- Disciplined, financially conservative strategy:
  - Announced acquisition of Boral's North American building products division & Lasco pipe fittings.
  - Increased Ethylene JV ownership to expand integrated vinyls margins.
  - Recent global PVC, VCM & Chlor Alkali expansions increase integration.
- Strong balance sheet and liquidity with focus on costs and cash generation.



Notes: (1) See page 20, (2) Includes WLK Corporate EBITDA, (3) Net Income attributable to WLK, (4) Excludes WLK corporate EBITDA

# Westlake, A Global Diversified Product Mix

## A Global Leading Producer:

### Chlor Alkali

2nd largest Chlor Alkali producer in the world, capitalizes on globally low cost natural gas for power in North America.

### PVC

2nd largest producer of PVC in the world leveraging the high level of product integration and long-term low cost feedstocks.

### Low Density Polyethylene

A global leader in specialty autoclave LDPE, 2nd largest producer of Low Density Polyethylene in the Americas.

### Building Products

Pending acquisitions will create a North American leader with a robust nation wide footprint.

## World Wide Presence:

### North America

Highly integrated, low cost production of PE, PVC & Caustic Soda:

- 11 Chemical sites.
- 20+ Polymer product sites.

### Europe

A global leader in Specialty PVC, Leading global PVC compounder:

- 5 Chemical sites.
- Downstream value added polymer compound products.

### Asia

High quality PVC resin and film products in a growth region:

- 2 Chemical sites.
- 3 Polymer product sites.

# Advancing Sustainability

## Developing Green Products

Vinnolit, a Westlake company, offers certified climate-friendly caustic soda utilizing renewable energy Guarantees of Origin (GOs). The CO<sub>2</sub> footprint of this low-carbon caustic soda introduced to the market under the brand name **GreenVin** is reduced by more than 30% compared to conventional Vinnolit caustic soda. We are continuing to work to develop additional green products that will drive value while reducing our carbon footprint. Westlake is in the process of rolling out PVC-O, which allows us to produce a pipe that uses 45% less material while delivering the strength and capabilities of current PVC pipes.

## Protecting the Environment

Westlake has numerous programs designed to promote safe, ethical, environmentally and socially responsible practices including: a worldwide recycling program, operating in an energy efficient manner and reducing water usage and emissions. As discussed in our sustainability report, over a five year period, Westlake has reduced Sulphur Dioxide emissions to almost zero, reduced energy usage per ton of global production and achieved a nearly 30% reduction on CO<sub>2</sub> emissions.

## Participating in Multi-Industry Associations for Environmental Protection

Westlake is a proud partner with the following organizations to drive sustainable action to eliminate plastic waste, capture more flexible food packaging waste for recycling and support vinyls' sustainable impact in the world, along with many other initiatives.



# Westlake Makes Essential Products To Protect and Enhance Our Daily Lives

Westlake's products support over half of the 17 Sustainable Development Goals adopted by the United Nations:



Westlake's products are used for many essential goods that are particularly important in today's environment:

## Chlor Alkali

Used in water treatment, disinfectants, paper, tissues and cardboard packaging.

## PVC

Used in medical equipment and supplies as well as a variety of construction and infrastructure uses, such as fresh and waste water piping.

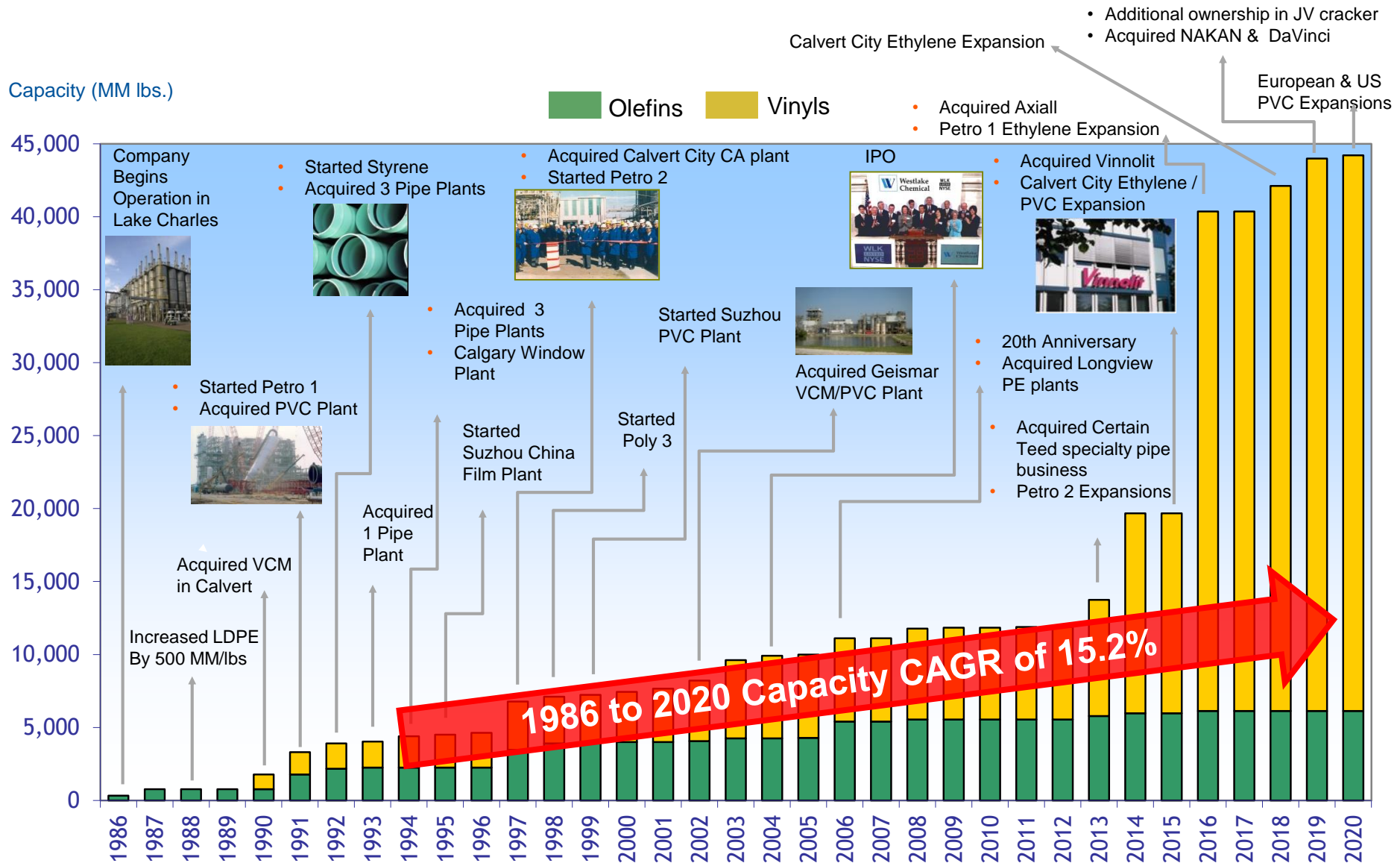
## Building Products

Used for more affordable and energy efficient housing .

## Low Density Polyethylene

Used for medical applications and food packaging.

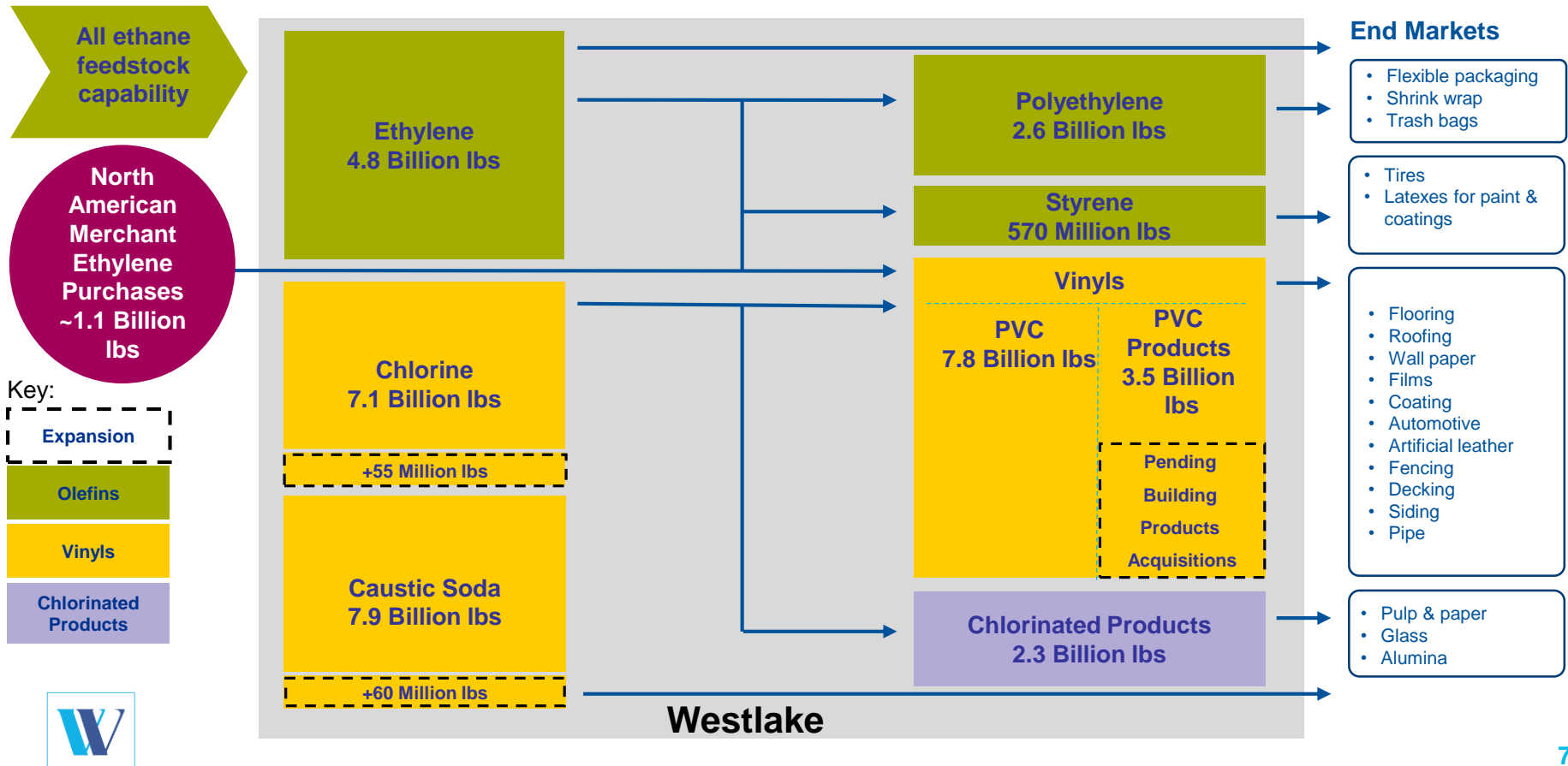
# Strategic Growth Diversifies Product Lines and Further Strengthens Integration Advantage



# Globally Advantaged Cost Position With A Very High Degree of Product Integration

## Westlake Chemical has a long-term strategic cost advantage:

- North America has a long-term cost advantaged position through abundant supply of Ethane from shale, electricity from natural gas and ample salt compared to global markets.
- Integration from feedstock to final product captures margin across the production chain and throughout the economic cycle.



# Key Highlights to Boral and Lasco Acquisitions

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Pending acquisitions of Boral Limited's North America building products business ('BNA') and Lasco fittings adds significant scale and product diversification to Westlake to broaden its leading Building Products and PVC pipes businesses:

- Significantly enhances scale and diversification of Westlake's leading building products business to create a building products company comparable in size and scale to large stand-alone public peers
- Further enhances Westlake's position in home building products in the attractive North American housing market that is benefitting from long term secular growth
- Additional value creation by capturing cost and revenue synergies from enhanced cross-selling opportunities
- Combination builds on Westlake's history of strategic growth and successful acquisition integration
- Westlake expects to maintain its investment grade credit metrics and strong financial profile



# Extensive Building Products Offerings

**ROYAL/BORAL OFFERINGS**

**1. ROOFING**  
 WYROVACHING Products, GAF, BORAL, CertainTeed, IKO, CLASSIC, TAMKO

**1. ROOFING ACCESSORIES**  
 CertainTeed, Omnicore Performance Inc.

**2. ALUMINUM & RAINWARE**  
 WYROVACHING Products, Ply Gem, Rollex, ALLSCO, BERGEN

**3. WINDOWS**  
 Ply Gem, Andersen, JELD-WEN, BORAL, JELD-WEN, JELD-WEN, BORAL, JELD-WEN

**4. SIDING**  
 WYROVACHING Products, Ply Gem, Kaycan, CertainTeed, BORAL, LP

**5. EXTERIOR TRIM**  
 WYROVACHING Products, CertainTeed, BORAL, LP, EXPON, AZEK

**6. STONE VENEER**  
 BORAL, Ply Gem, ProVia

**7. BRICK**  
 Belden, General Shale, Glen-Gery

**8. COLUMNS**  
 WYROVACHING Products, H&G

**9. INTERIOR TRIM**  
 WYROVACHING Products, MDF, Wood, EXPON

**ROYAL/BORAL COMBINED ITEMS**

**OTHER BUILDING CATEGORIES**

**1. CONNECTED DEVICES**  
 ring, nest, Honeywell, FAT-N, ecobee

**2. PAINT**  
 Sherwin-Williams, PPG, Benjamin Moore

**3. SOLID SURFACES**  
 COUSINS, Wilsonart, Formica

**4. INSULATION**  
 CertainTeed, Knauf, ICYNENE, BASF, Johns Manville, ROCKWOOL

**OTHER BUILDING CATEGORIES**

**5. PLUMBING**  
 KOHLER, MASCO, FORTUNE BRANDS, MOEN

**6. APPLIANCES**  
 GE, LG, SAMSUNG

**7. FLOORING**  
 Interface, Armstrong, Mohawk, Shaw

**8. DRAINAGE SYSTEM**  
 Form-A-Drain

**9. PAVERS**  
 Belden, UniLock, Oldcastle, EPHEM

**COMPLIMENTARY OFFERINGS**

**1. EXTERIOR DOORS**  
 Therma-Tru, Masonite, JELD-WEN, Andersen, Simpson, ProVia

**2. CABINETS**  
 MASCO, KraftMaid, American Woodmark

**3. PATIO DOORS**  
 Andersen, JELD-WEN, Ply Gem

**4. INTERIOR DOORS**  
 JELD-WEN, Masonite, Republic

**5. GARAGE DOORS**  
 Clopay, Amarr, Raynor, C.I.I.

**ROYAL/BORAL OFFERINGS**

**10. DECKING**  
 WYROVACHING Products, AZEK, TAMKO, Trex, Fiberon, TimberTech

**11. OUTDOOR LIVING**  
 BORAL

■ Royal Product Offering    ■ Complimentary/Adjacent Product Offering    ■ Other Building Product Categories



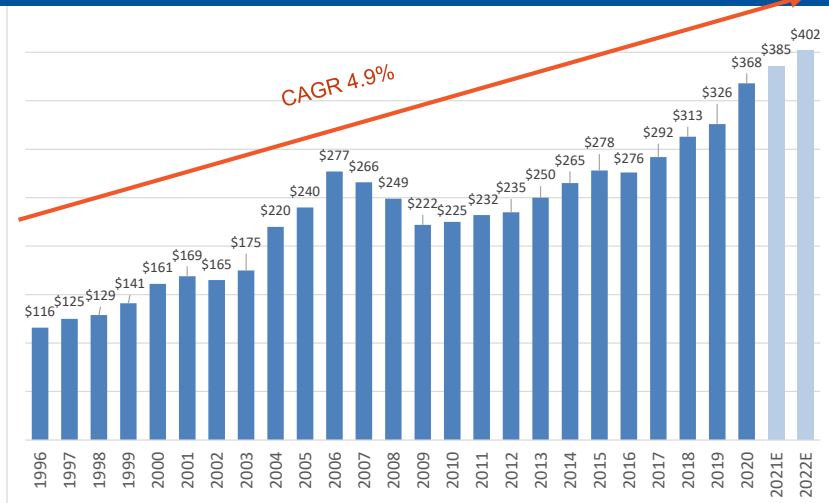
# Secular and Structural Strength in Housing Supports Attractive Opportunities in PVC and Building Products Growth

Secular trends to drive U.S. housing demand growth, which will benefit Westlake's Building Products and PVC businesses:

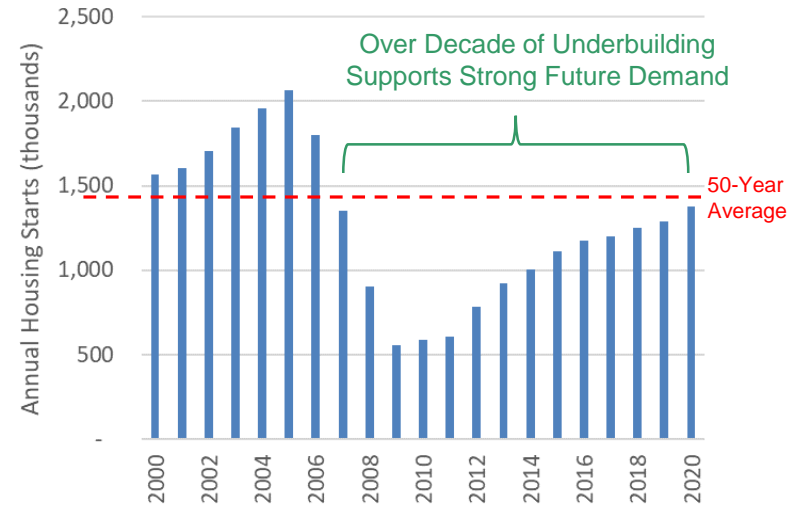
- Favorable demographics with increasing number of U.S. population to be in peak household formation years
- Underbuilding of homes since 2007-2009 financial recession creates significant cumulative deficit in available homes today
- Impact from COVID-19 pandemic increasing preferences for single family housing

Source: Harvard JCHS

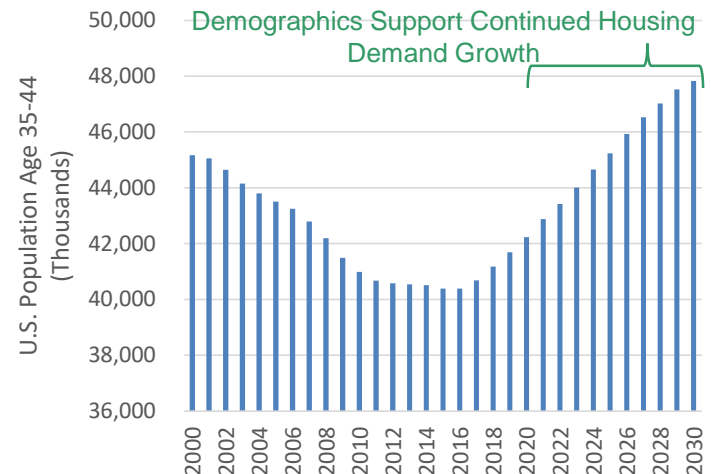
## U.S. Repair and Remodel Expenditures (\$B)



## U.S. Housing Starts 2000 - 2020



## U.S. Population Age 35-44: Peak Household Formation Years



Source: U.S. Bureau of the Census, OECD

# BNA & Lasco Acquisitions Provides Significant Scale and Diversification to Westlake's Building Products and Infrastructure Materials Business

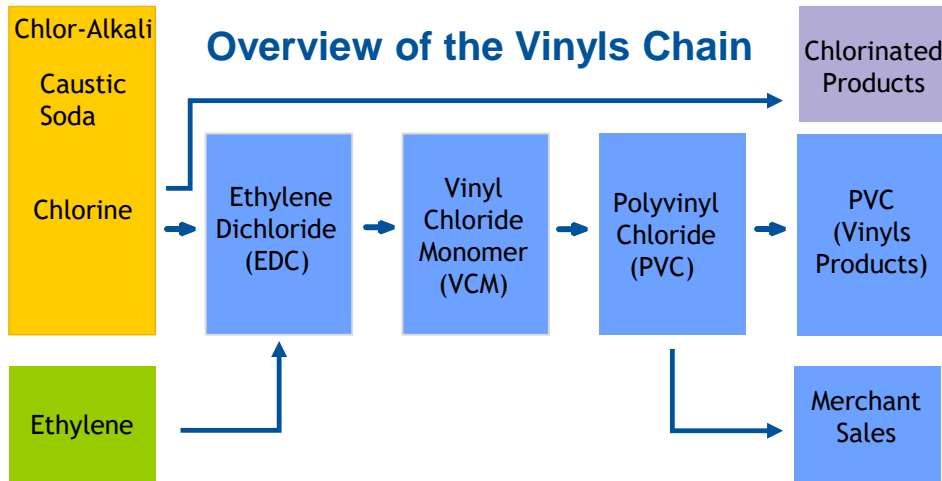
	Westlake Pre-BNA Acquisition	Westlake Building Products	BNA	Westlake Post BNA & Lasco Acquisition	Westlake Building Products Post BNA & Lasco Acquisition
(\$ millions)					
2020 Full Year Sales	~\$7,500	~\$2,000 <sup>1</sup>	~\$1,100	~\$8,763	~\$3,236 <sup>1</sup>
Sales by segment (LTM 03/31/2021)	<p>Olefins 21% Building Products 28% US PVC 18% ChlorAlkali &amp; EU PVC 34%</p>	<p>Vinyl Trim and Molding, Composite Roofing, PVC Pipe &amp; Fittings, Vinyl Siding, and Compounds</p>	<p>Windows 16% Siding, Trim, &amp; Shutters 29% Roofing 30% Stone 25%</p>	<p>Olefins 18% Building Products 37% US PVC 16% ChlorAlkali &amp; EU PVC 29%</p>	<p>Legacy WLK 60% Roofing 13% Siding, Trim &amp; Shutters 11% Stone 10% Windows 6%</p>
Sales by region (Full Year 2020)	<p>Taiwan 1% China 2% Germany 6% Canada 8% US 68% Other 13%</p>	<p>North America 100%</p>	<p>North America 100%</p>	<p>Taiwan 1% Italy 1% China 2% Germany 5% North America 79% Other 12%</p>	<p>North America 100%</p>



<sup>1</sup> Westlake Building Products Sales Includes Specialty PVC Compounds Business  
 Note: Market data as of 6/17/2021; LTM financials as of 3/31/2021  
 Source: Company filings, FactSet, industry research

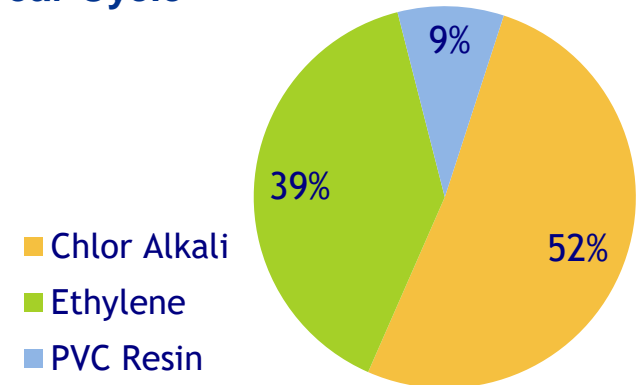
# Low Cost Producer of PVC

## Combined with High Integration Captures Margin



**Majority of Margin Captured in Chlor-Alkali and Ethylene.**

**Average Vinyls Industry Margin Distribution Over the Last 10 Year Cycle**

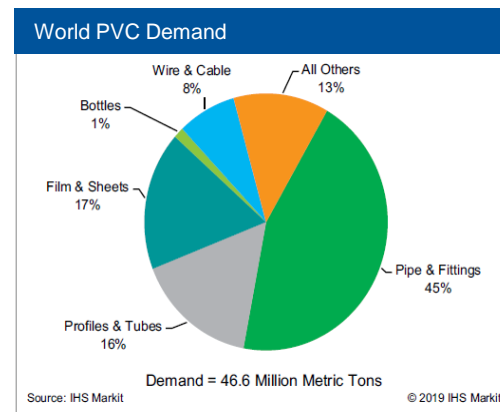
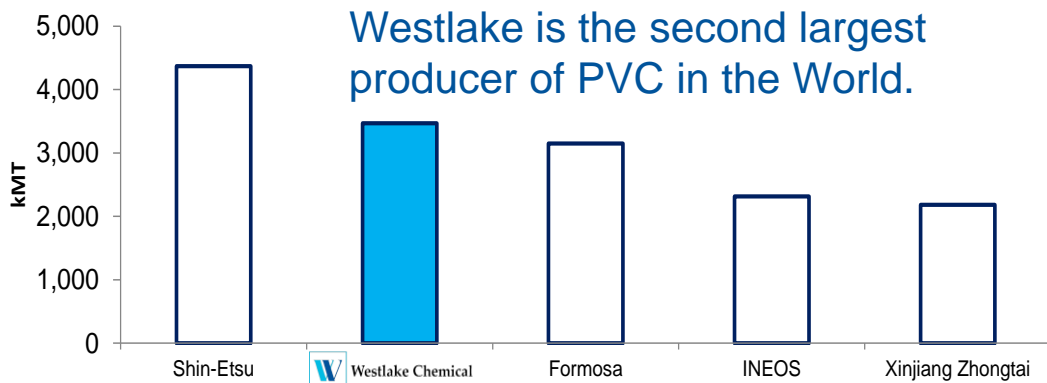


- **Westlake has made numerous PVC debottlenecks that inexpensively capture more integrated margin**
- Integration has allowed Westlake to operate its chlorovinyls plants at higher operating rates than US industry average.
- Increased ownership in the Westlake – Lotte JV Ethylene cracker expands Ethylene integration advantage.
- Through backward integration into Chlor Alkali (shale gas based power) and ethylene (shale gas based ethane), Westlake is consistently one of the lowest cost PVC producers globally.
- Cost competitive PVC exports as Westlake sits long-term at the low end of the cost curve.
- Complexity of vinyls chain drives value and raises barriers to entry.

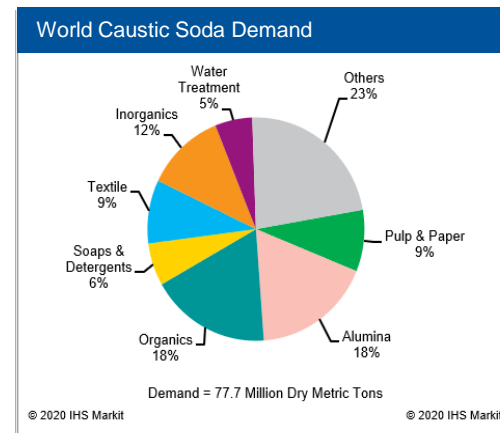
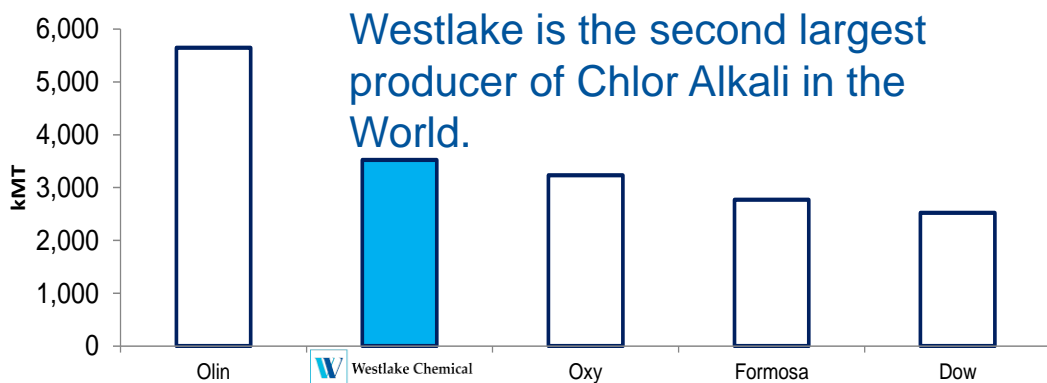


# A Global Chlorovinyls Leader with Enhanced Scale

2021 Global PVC capacity (KMT)



2021 Global Chlor-Alkali capacity (KMT)



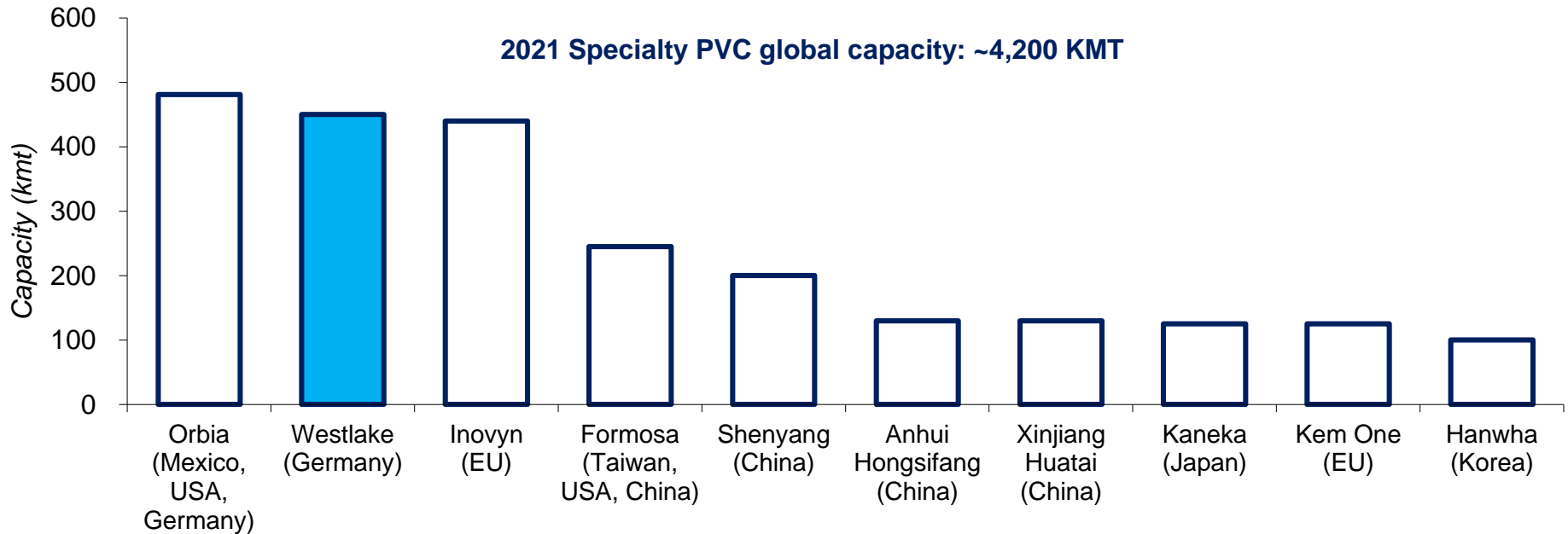
## Solid Fundamentals for PVC and Chlor Alkali:

- Supply / demand balance with minimal announced capacity additions in both PVC and Chlor Alkali expected to provide healthy forward fundamentals.
- Westlake is a globally low cost producer of PVC and Chlor Alkali.



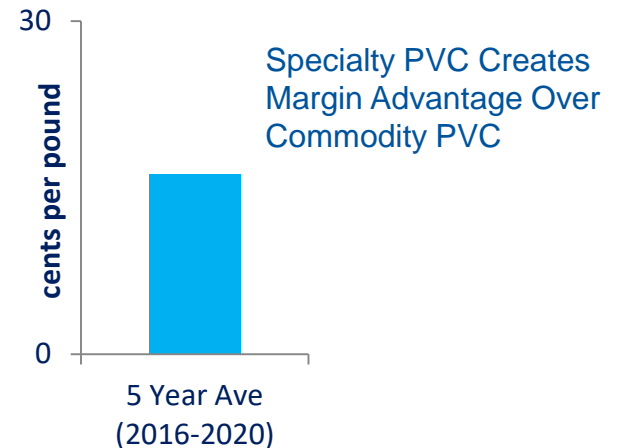
# Westlake is a Global Leader in Specialty PVC

Westlake / Vinnolit is a leading producer of specialty PVC



Westlake's Vinnolit operations provide specialty PVC which:

- Delivers higher margins and diversifies end market demand vs. commodity PVC.
- Broadens Westlake's market channels.

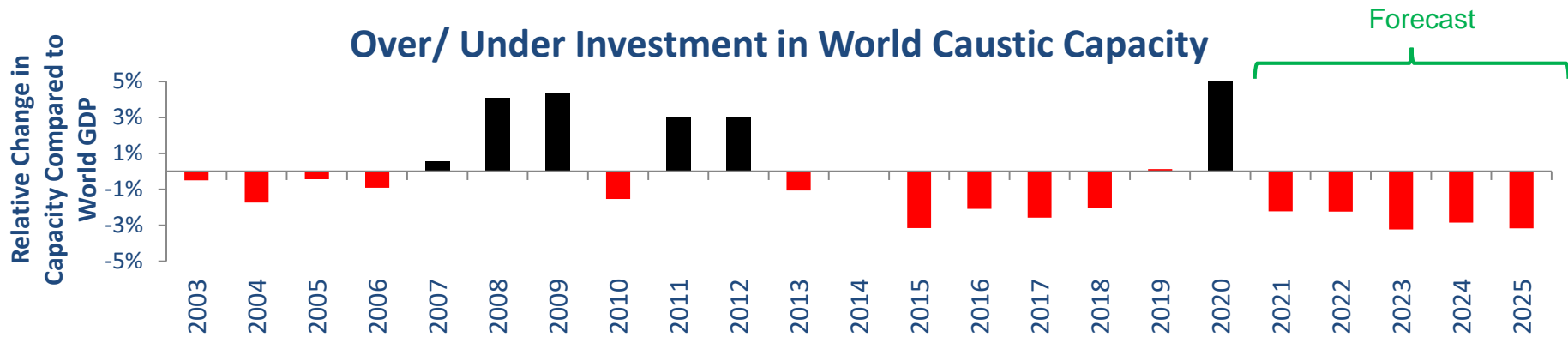


Source: IHS Markit



# Fundamentals in Chlor Alkali Constructive

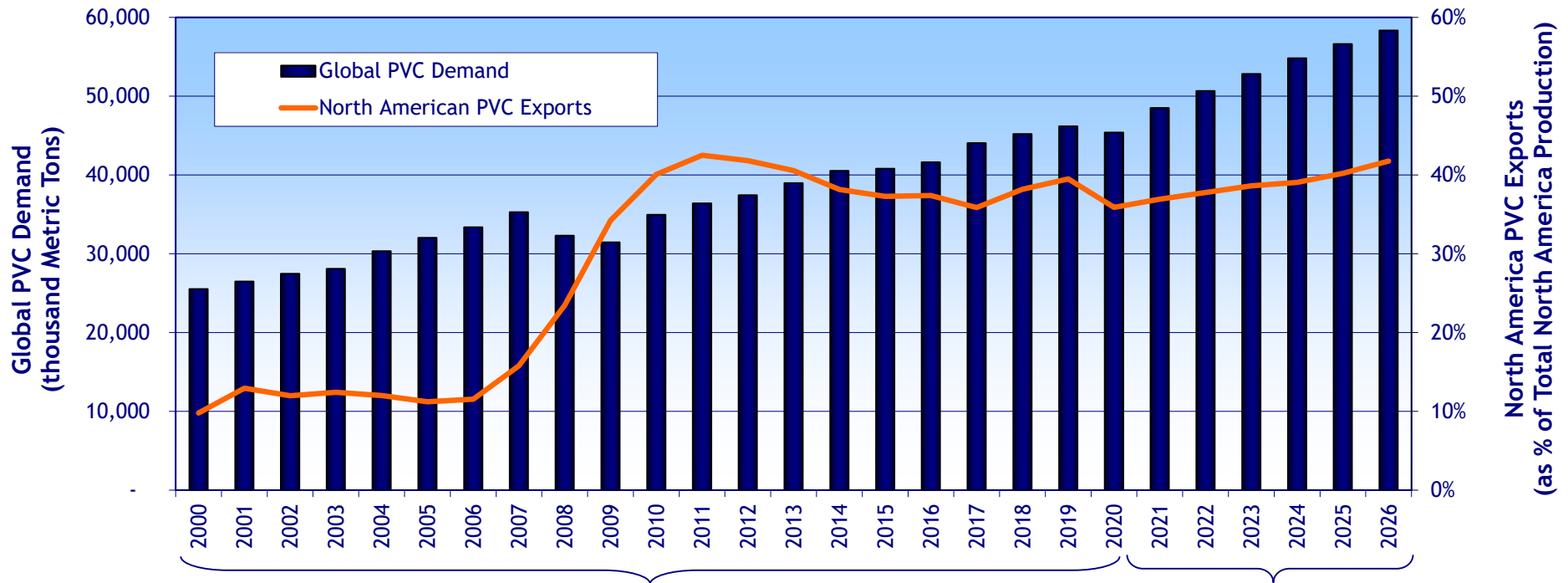
Significant under investment positions the industry to benefit as demand grows



- Integrated facilities in North America benefit from consistently low cost feedstocks and natural gas.
- Outlook for demand growth outpaces industry capacity additions.



# Growing Global PVC Demand Supports North American Exports



Source: IHS Markit

2000 – 2020 Global Demand CAGR = 2.9%

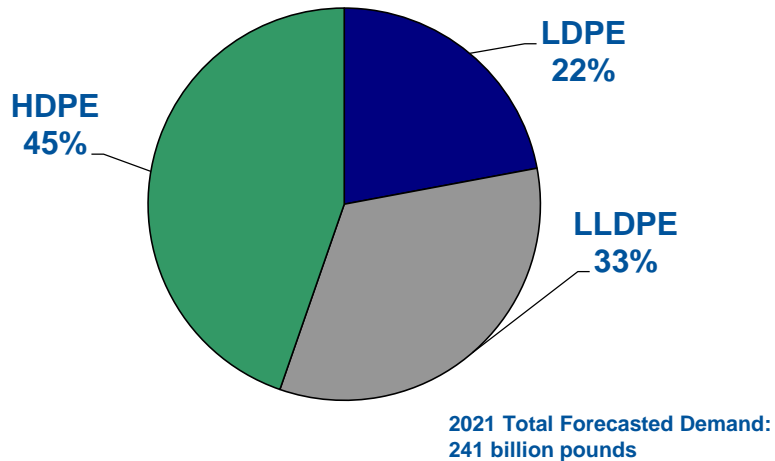
2021 – 2026  
Global Demand  
CAGR = 3.8%

- Global growth in PVC demand is forecasted to continue growing well into the future.
- Producers with a high level of integration benefit with higher margins over the cycle.
- Global growth in PVC demand and long-term advantaged feedstocks in PVC production supports North American production.

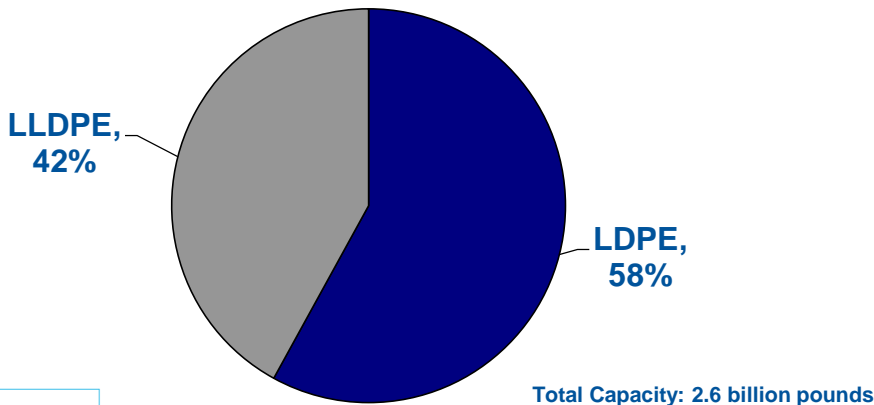


# Advantaged Polyethylene Product Mix

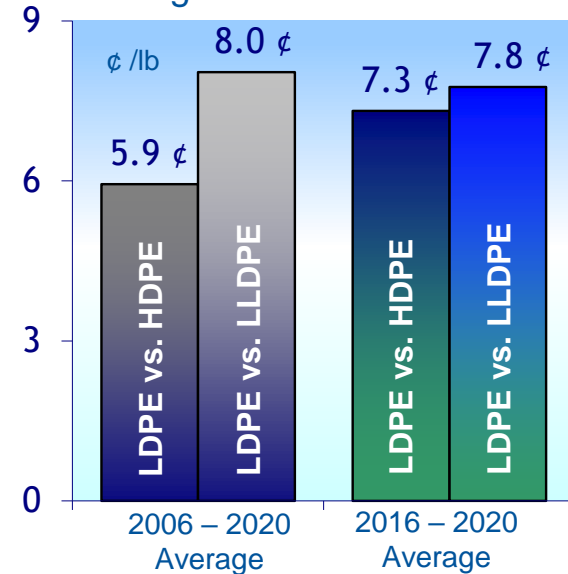
2021 Global Industry Demand  
(% share)



Westlake Capacity (% share)



LDPE is More Profitable than LLDPE and HDPE  
Average Margin Advantage of LDPE vs. Other PE Grades



Specialty PE<sup>(1)</sup> Is Even More Profitable



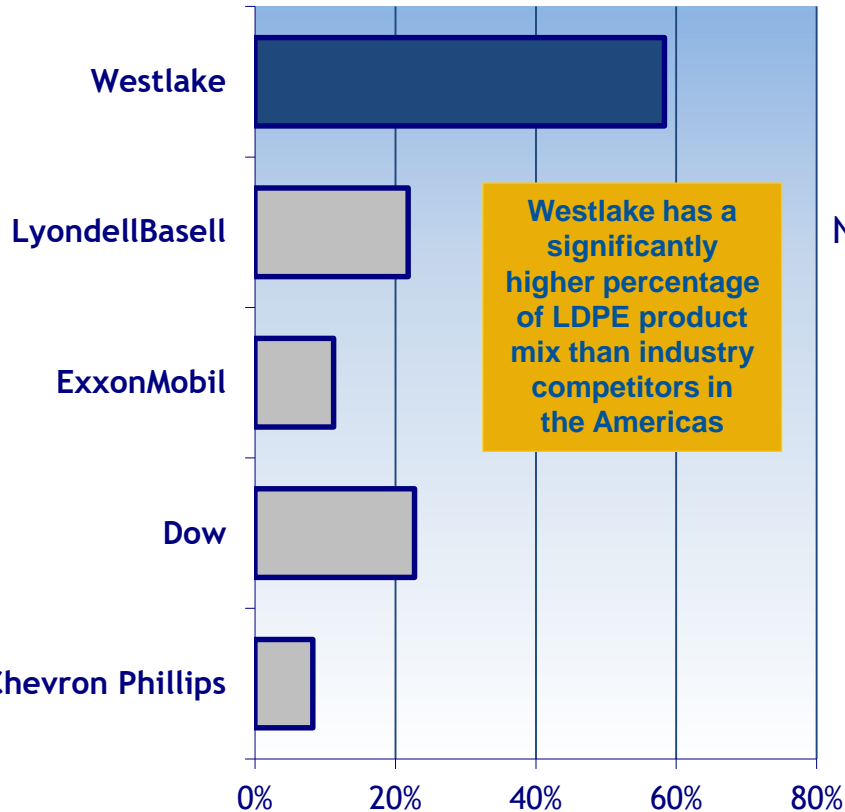
Note (1): Chart above reflects a mix of both specialized and differentiated products for LDPE and LLDPE.



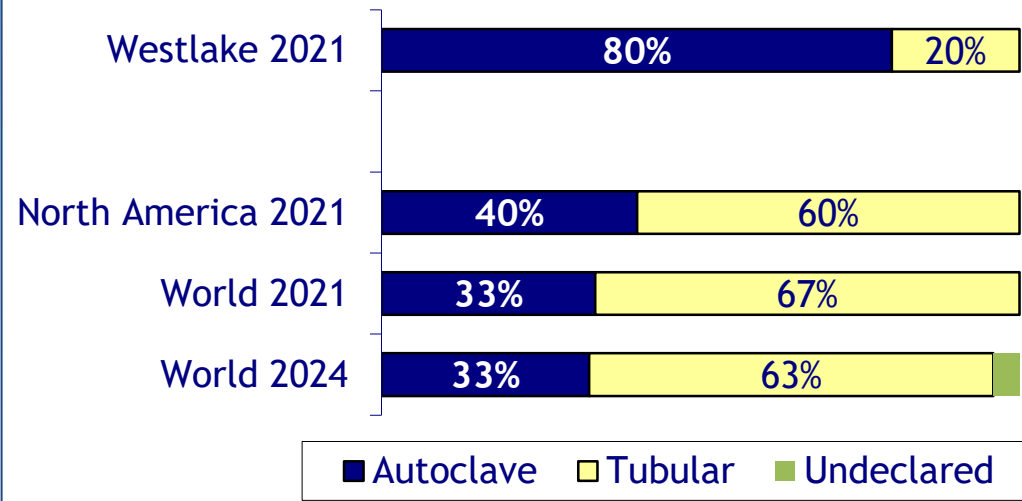
# Advantaged Product Mix

## Westlake's Unique LDPE Focus

### LDPE Capacity as a Percentage of Total Company PE Capacity



### The Specialty Advantage



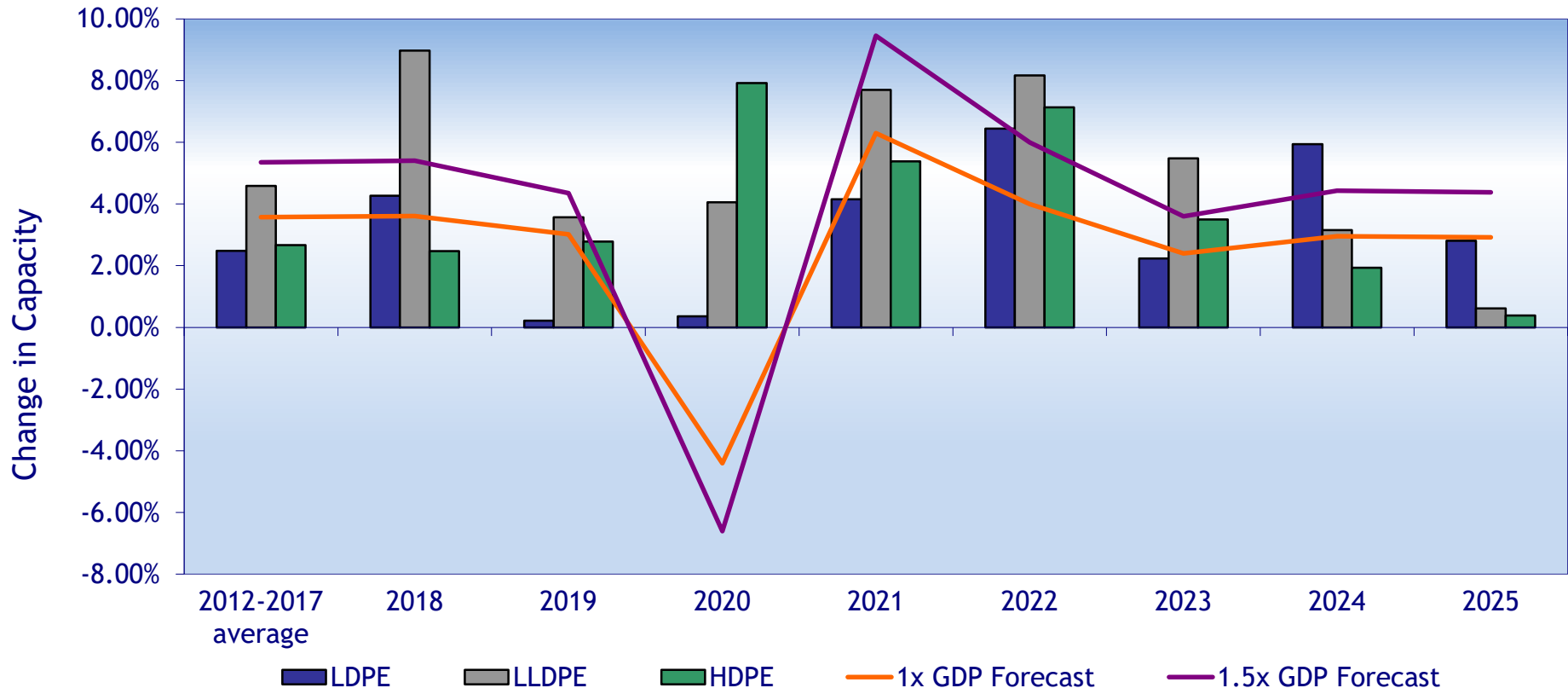
### Autoclave vs Tubular LDPE:

- Autoclave LDPE is a more specialty product with broader applications and better margins; Westlake's focus into food packaging applications provides demand stability.
- Supply/demand balance for autoclave grows tighter.



# Global Polyethylene Capacity Additions are Focused on LLDPE and HDPE, not on LDPE

World Polyethylene Capacity Growth by Product



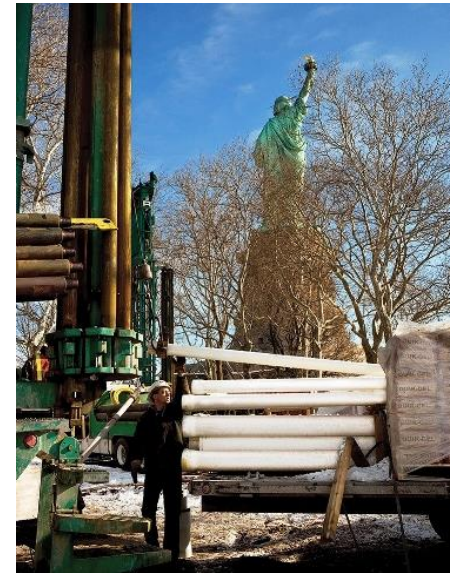
Westlake is focused on LDPE:

- Global polyethylene demand grows between 1.0x to 1.5x GDP.
- LDPE capacity additions are limited and almost all commodity grade.
- Westlake focus on food packaging provides stable demand support in 2020.



# Financially Disciplined

- A leading materials company founded and operated on value creation.
- A global, diversified products producer fueled by long-term low cost feedstock.
- High level of product integration drives higher operating rates with higher margin specialty production in Polyethylene and PVC.
- Strong integrated domestic sales channels provide opportunity for acquisition synergies.
- Disciplined investment culture and a strong balance sheet provide for ability to weather economic cycles and generate strategic growth over time.



# Higher Cycle Average Margins

## Focus on “Bottom Line”



Source: Bloomberg

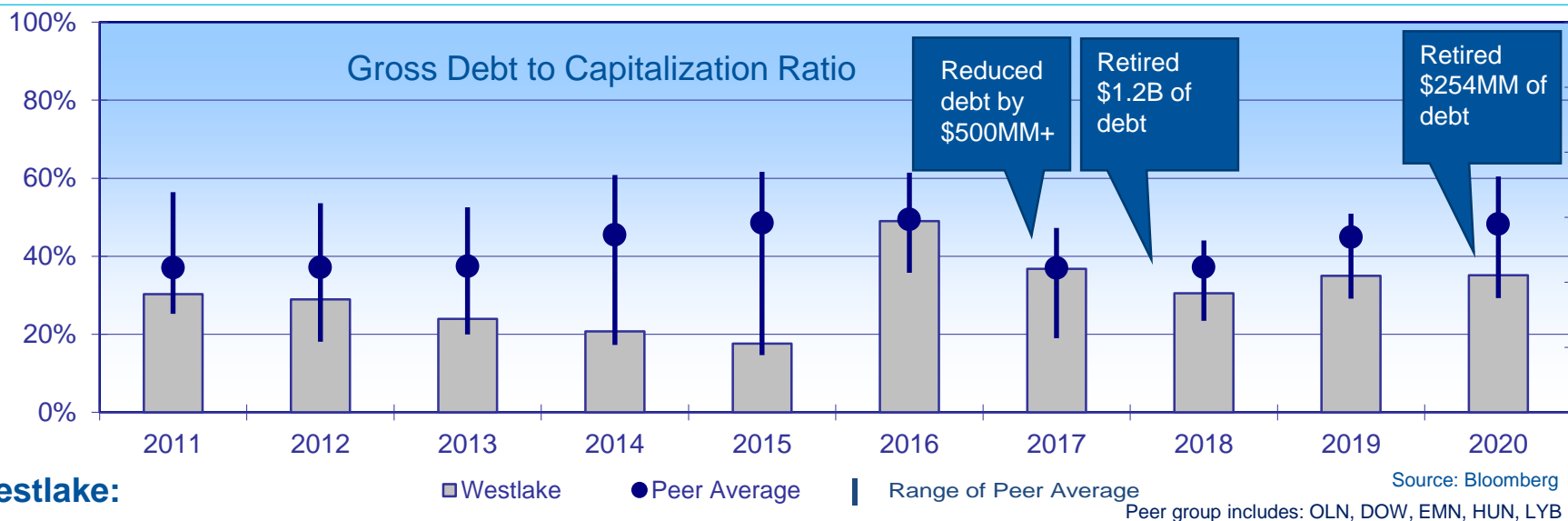
\*Peer averages as of latest available data  
includes: EMN, HUN, OLN, LYB, DOW

### Higher margins and returns attributable to:

- Focused Growth
- Asset Quality
- Operating Rate Advantage
- Chain Integration
- Product Mix
- Feedstock



# Conservative Financial Profile



## Westlake:

- Is committed to maintaining solid investment grade credit metrics and ratings.
- Leverage remained below peers even after acquiring Axiall in 2016 and quickly de-levered in the following year.
- Retired \$254MM of higher cost debt in 2020 driving \$6 million of annualized interest savings per year while maintaining long-dated debt maturity profile.
- Has shown a significant growth in business while maintaining a conservative balance sheet.
- Recently announced acquisition intensions not expected to change investment grade ratings.

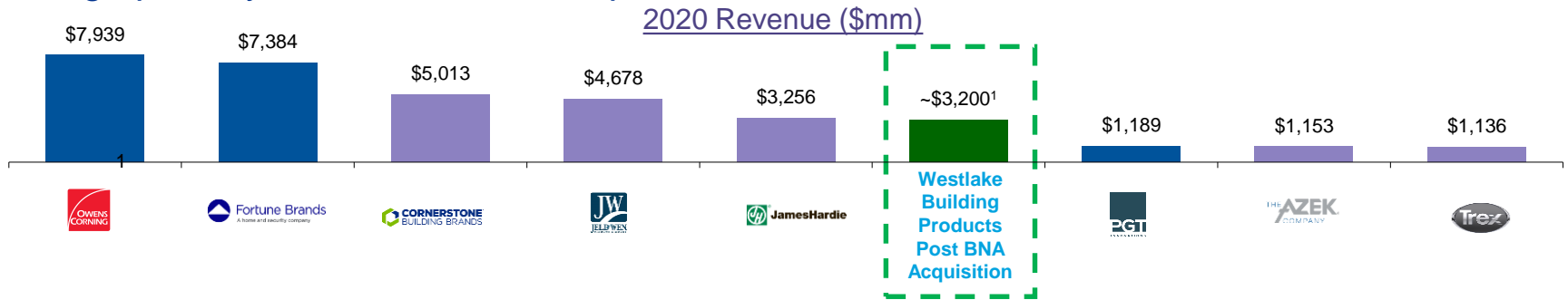
Agency	Rating
S&P	BBB
Fitch	BBB
Moody's	Baa2

## Westlake Chemical Partners (WLKP) provides Westlake Chemical Corporation (WLK) with:

- Allows Westlake Chemical Corporation to capture a premium EBITDA multiple and reinvest it back into its chemical business.
- Over \$500MM of equity proceeds raised by Westlake Partners has been reinvested by Westlake Chemical to generate incremental EBITDA at WLK.
- WLKP provides cost effective capital for future needs.

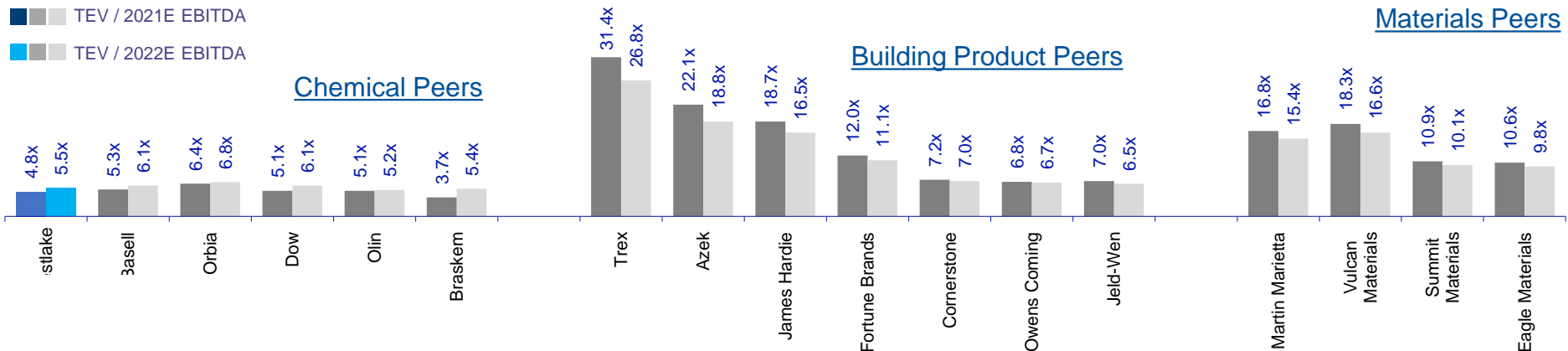
# Combination Creates Building Materials Business in Scale on Par to Large Stand-Alone Public Peers

- Acquisition creates a Building Products business at Westlake comparable in size to many large publicly traded stand-alone peers



- Building Products companies consistently trade at premium TEV/EBITDA multiples relative to chemical companies
- Addition of BNA significantly increases the portion of Westlake attributable to these higher valued earnings and cash flow associated with Building Products

## Current Industry TEV/2021E and 2022E EBITDA multiples



Note: Market data as of 7/28/2021. Source: Factset, Bloomberg, Company filings <sup>1</sup> Westlake Building Products Sales Includes Specialty PVC Compounds Business Fortune Brands pro-forma for Larson acquisition, Cornerstone pro-forma for divestiture of Insulated Metal Panel business, PGT pro-forma for acquiring ownership stake in Eco Window Systems

# Strategic Investment Drives EBITDA Growth

**Westlake Chemical continues its proven record of strategically deploying capital to fund future bottom line growth**

Strategic Growth Delivers Strong Results

## Proven Results

Added Ethylene Capacity

Added PVC Capacity

Added Chlor Alkali Capacity

Acquired Vinnolit and Specialty PVC Products



Added Ethylene Capacity

Acquired Axiall

Acquired NAKAN

Acquired DaVinci



Added Ethylene Capacity

Adding PVC Capacity

Two pending building products acquisitions



## Future EBITDA

- Timely investments to integrate the full value chain drive EBITDA.
- Conservative balance sheet provides strength to weather economic cycles and fund future opportunistic growth.



# Reconciliation of Westlake EBITDA to Net Income and to Cash Flow from Operating Activities (in \$ millions)

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	TTM 2Q 2021
Adjusted EBITDA	\$ 584	\$ 780	\$ 1,118	\$ 1,330	\$ 1,244	\$ 1,015	\$ 1,841	\$ 2,101	\$ 1,407	\$ 1,246	\$ 2,158
Debt Retirement Cost	-	(7)	-	-	-	-	-	-	-	-	-
EBITDA	584	773	1,118	1,330	1,244	1,015	1,841	2,101	1,407	1,246	2,158
Less:											
Income Tax (Provision) Benefit	(142)	(200)	(332)	(399)	(298)	(138)	258	(300)	(108)	42	(249)
Interest Expense	(51)	(43)	(18)	(38)	(35)	(79)	(159)	(126)	(124)	(142)	(139)
Depreciation & Amortization	(132)	(144)	(158)	(208)	(246)	(378)	(601)	(641)	(713)	(773)	(789)
Non Controlling Interest	-	-	-	(6)	(19)	(21)	(35)	(38)	(41)	(43)	(43)
Net Income	259	386	610	679	646	399	1,304	996	421	330	938
Non Controlling Interest	-	-	-	6	19	21	35	38	41	43	43
Changes in operating assets & liabilities and others	86	233	49	288	374	346	723	313	785	778	623
Deferred income taxes	14	6	94	59	40	101	(534)	62	54	146	74
Cash flow from operating activities	\$ 359	\$ 624	\$ 753	\$ 1,032	\$ 1,079	\$ 867	\$ 1,528	\$ 1,409	\$ 1,301	\$ 1,297	\$ 1,678
Vinyls EBITDA	48	131	207	247	398	415	1,095	1,439	1,032	957	1,522
Olefins EBITDA	549	655	944	1,126	863	699	803	715	407	303	676
Corporate EBITDA	(13)	(13)	(33)	(43)	(17)	(99)	(57)	(53)	(32)	(14)	(40)
Westlake Adjusted EBITDA	\$ 584	\$ 773	\$ 1,118	\$ 1,330	\$ 1,244	\$ 1,015	\$ 1,841	\$ 2,101	\$ 1,407	\$ 1,246	\$ 2,158

## Note 1 from page 2: Non-GAAP Financial Measures

This presentation includes the non-GAAP measure EBITDA. A reconciliation to net income and to cash flow from operating activities is included above.



# Safe Harbor Language

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This presentation contains certain forward-looking statements including statements regarding managing working capital, lowering operating costs and reducing capital expenditures and the timing of the Petro 2 turnaround. Actual results may differ materially depending on factors such as general economic and business conditions; the cyclical nature of the chemical industry; the availability, cost and volatility of raw materials and energy; uncertainties associated with the United States, Europe and worldwide economies, including those due to political tensions in the Middle East and elsewhere; current and potential governmental regulatory actions in the United States and Europe and regulatory actions and political unrest in other countries; industry production capacity and operating rates; the supply/ demand balance for our products; competitive products and pricing pressures; instability in the credit and financial markets; access to capital markets; the COVID-19 pandemic and the response thereto; terrorist acts; operating interruptions including leaks, explosions, fires, weather-related incidents, mechanical failure, unscheduled downtime, labor difficulties, transportation interruptions, spills and releases and other environmental risks; changes in laws or regulations; technological developments; our ability to implement our business strategies; creditworthiness of our customers; and other factors described in our reports filed with the Securities and Exchange Commission. Many of these factors are beyond our ability to control or predict. Any of these factors, or a combination of these factors, could materially affect our future results of operations and the ultimate accuracy of the forward-looking statements. These forward-looking statements are not guarantees of our future performance, and our actual results and future developments may differ materially from those projected in the forward-looking statements. Management cautions against putting undue reliance on forward-looking statements. Every forward-looking statement speaks only as of the date of the particular statement, and we undertake no obligation to publicly update or revise any forward-looking statements.

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**Westlake  
Chemical**