

POLYETHYLENE WEBSITE MIGRATION PROPOSED APPROACH

Version 1.3 | March 21, 2017

Presented to:



**Westlake
Chemical**

Created by:



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DOCUMENT DETAILS

Version 1.2			
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Approved by:		Date:	

VERSION HISTORY

Version	Date	Author	Description
1.0	2.2.2017	Ranjith Nagarajan	Initial Draft
1.2	3.7.2017	Denise Baker	<p>Adjustments per requirements confirmation meeting.</p> <ul style="list-style-type: none"> Removed assumption 3 - Project does not require any effort to add structured content. Changed assumption 4 - SiteHawk iframe link to be provided by client. to Links and attribute information related to SDS files stored in SiteHawk will be provided by client and uploaded to Drupal by Ameex. Changed 2.1B Changed Figure 1 Removed Figures 2 and 3 Removed question on 2.2B Notes column

			<ul style="list-style-type: none">• Removed notes in 3.1A• Removed notes in 3.1B• Removed 5.1 A• Clarified 5.1 B – Changed to A
1.3	3.21.2017	Denise Baker	Changed documentation on product landing and detail pages. Section 3.1



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[1.0] INTRODUCTION

[1.1] Overview

The purpose of this document is to outline the client requirements for migration of the Westlake Chemical Polyethylene and Epolene website content to the main Westlake Drupal implementation.

[1.2] Project Goals

Primary Goal

Primary goal of Westlake is to make maintaining content updates for the Polyethylene and Epolene websites more efficient.

Secondary Goals

- Improve user experience
- Prevent duplicate content entry by CMS editors

[1.3] Assumptions

ID	ASSUMPTION
1	Client will provide any required graphics optimized for web.
2	Project does not require any changes to CSS or JS.
3	Links and attribute information related to SDS files stored in SiteHawk will be provided by client and uploaded to Drupal by Ameex.

[1.4] Dependencies

This Functional Specification document has dependencies with the following documents/deliverables:

- 3 Sitemaps
- 3 Page Layout Mockups

[1.5] Risks

Risk due to unclear requirements:

Design changes could be forced due to unclear requirements. This risk will be mitigated by having weekly status calls with the Westlake team during development phase to ensure the issues faced are taken up and validated against client requirements. These are also check points for the Westlake team to point out differences from their expected outcome.

Risks due to technical complications:

Design changes could arise due to technical complications during the course of the project. This might lead to scope creep, increased developmental costs, design changes etc. Mitigation involves including a technical consultant during the initial phases of the project itself.

[2.0] NAVIGATION CHANGES

[2.1] Main Navigation Menu

ID	TITLE	DESCRIPTION	NOTES, ASSUMPTIONS & QUESTIONS
2.1 A	Polyethylene Link	In main navigation Polyethylene will be changed to link to internal content on site. Alias will be http://westlake.com/products/polyethylene	
2.1 B	Epolene Link	Epolene will remain in the main navigation as it is currently, and will change to link to the Epolene landing page being migrated to the Westlake website.	

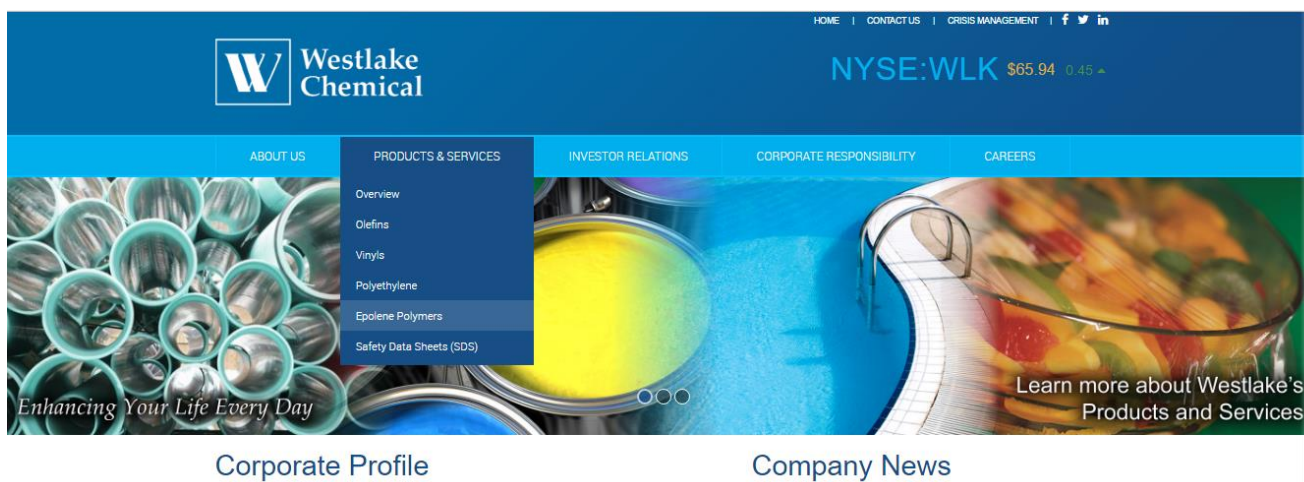


Figure 1- Refer to 2.1 A and 2.1 B

[2.2] Sub Navigation Menu

ID	TITLE	DESCRIPTION	NOTES, ASSUMPTIONS & QUESTIONS
2.2 A	Product Landing Sidebar Menu	<p>To accommodate for up to three levels of sub navigation in the Polyethylene section of the website sidebar menus will be added to allow for user navigation.</p> <ul style="list-style-type: none"> On the product landing page, Polyethylene landing, an accordion style sidebar menu that replicates the style of the existing accordion menu used in the Olefins section of the website. Upon click of any item listed above user will be directed to a landing page and any sub pages to that landing page will be revealed in the sidebar menu so that user can navigate to the deeper level content (ie Epolene). Sidebar menu should display a stick effect for the menu item that is currently active. 	<p>Assume sidebar menu will automatically function as described with no additional development effort.</p> <p>Refer to attached mockup for page structure guidance. Original design elements (fonts, graphics, and styles) will be inherited from the current site design. Attached mock up is intended for demonstration purposes only.</p>
2.2 B	Breadcrumbs	<p>Existing breadcrumb functionality for new content pages allowing users to navigate to higher level pages without having to navigate backwards manually.</p> <p>Current functionality displays 3 or more levels below interior page hero billboard images.</p>	<p>Assume breadcrumbs will automatically function as described with no additional development effort.</p>
2.2 C	Taxonomy for Product Sidebar Menus	<p>The product page sub menu systems will be dynamically driven using content hierarchical taxonomy assignment.</p> <p>For example, the Epolene® page would be categorized as a “Specialty Polymer” within the “Polyethylene” category.</p>	<p>Taxonomy hierarchical structure will follow the approved proposed migration sitemap.</p> <p>When adding any new products in the Polyethylene section the CMS editor will select the taxonomy assignment.</p> <p>Assuming only applying to content coming from Polyethylene site as part of this effort, however recommend considering reconfiguring all product content to follow the same setup.</p>

[3.0] PAGE LAYOUTS

[3.1] Product Pages

ID	TITLE	DESCRIPTION	NOTES, ASSUMPTIONS & QUESTIONS
3.1 A	Polyethylene Landing	<p>Upon of click on Polyethylene menu option in main navigation menu user is directed to the Polyethylene landing page. The page will function as follows:</p> <ul style="list-style-type: none"> • Displays hero billboard image beneath main navigation area • Two Column, displaying sidebar on left and content area on right. • Displays breadcrumb links below hero billboard • Displays page title (above content and on right side column) • Sidebar will be utilized for an accordion sub menu (2.2) • Content area should display free text area. 	
3.1 B	Product List	<p>Upon click of any of the product categories listed in the left-hand sidebar menu on the Polyethylene page the user is redirected to a product list page. The page will function as follows:</p> <ul style="list-style-type: none"> • Displays hero billboard image beneath main navigation area • One column page. • Displays breadcrumb links below hero billboard • Displays page title (above content and on right side column) • Free text area displays beneath page title. • Product list is displayed beneath free text area. Each listing will include <ul style="list-style-type: none"> ○ Thumbnail Photo ○ Title ○ Summary ○ Read More Link 	<p>Image for hero billboard to be provided by client. Image should be optimized for web prior to delivery to Ameex.</p> <p>Refer to attached mockup for page structure guidance. Original design elements (fonts, graphics, and styles) will be inherited from the current site design. Attached mock up is intended for demonstration purposes only.</p>

		<ul style="list-style-type: none"> • Upon click of read more link user is directed to appropriate product detail page • Display will account for responsive views. • Listing will be dynamically driven by assigning appropriate taxonomy option to content from work area. • Content will be structured and editor should be able to update all elements from Drupal work area. 	
3.1 C	Product Detail	<p>Upon click of a product link on product list page user is taken to a product detail page that lists specific product attributes.</p> <ul style="list-style-type: none"> • Displays hero billboard image beneath main navigation area • One Column page. • Displays breadcrumb links below hero billboard • Right side will display content from current Polyethylene website. <ul style="list-style-type: none"> ○ The content as displayed on this page will be set up in Drupal site as free form HTML content block. • Editor should be able to update all elements from Drupal work area. 	

[3.2] Application Page

ID	TITLE	DESCRIPTION	NOTES, ASSUMPTIONS & QUESTIONS
3.2 A	Application Document List	Application page content is being migrated as is however, rather than list the document downloads in a long list format with pagination the content will be displayed in a 4x4 grid view for desktop and a 2x8 view for mobile. Pagination will only be displayed when results are 16 or greater.	Example below.

Clarity Films

Westlake offers a broad range of clarity LDPE resins that are industry standards in bakery, beverage overwrap and many other applications where film clarity and superb printability are essential. For demanding applications that require high strength, Westlake's HIFOR CLEAR resins offer an optimal combination of strength, clarity and ease of processing.

EB502	EN1820	EB171	SP2252
SP2255	SP2261	SP1358	EC1550
EC4042	EF1807	EF4060	EF796
EF923	EF403	EF418	EP310

[4.0] STYLES AND FORMATTING

[4.1] Current Global Styles

Content migrated from the Polyethylene and Epolene websites will not require any adjustments to CSS or website HTML for this migration effort. Font colors, families, etc will all inherit the same look and feel as the rest of the current Westlake website. Once the content is migrated over and natural inherits the Westlake website styles the content should will have a more consistent look and feel overall.

[5.0] SAFETY DATA SHEETS

[5.1] Current SDS Page and SiteHawk

ID	TITLE	DESCRIPTION	NOTES, ASSUMPTIONS & QUESTIONS
5.1 B	SiteHawk	Westlake uses an SDS drafting and management service provided by SiteHawk. SiteHawk provides external links to documents managed directly in SiteHawk.	

		<p>Westlake will provide documentation mapping links to SDS file and detailing the following attributes for each file.</p> <ul style="list-style-type: none"> • Title • Product <p>Users will have ability to filter for specific SDS sheets as per the current SDS page functionality.</p>	
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[6.0] SITEMAPS

The current Westlake website does not include a sitemap page or XML file. XML Sitemaps are recommended to improve SEO, and should be included on the site. In addition a visual sitemap page can also be beneficial for improving UX on the website. Including both and XML sitemap and sitemap page should be evaluated prior to signoff on approach.

[6.1] Westlake Website

<https://ameexusa.slickplan.com/e2echnnc>

[6.2] Polyethylene/Epole Website

<https://ameexusa.slickplan.com/mgyy7gij>

[6.3] Westlake Migration Website

<https://ameexusa.slickplan.com/wzdb3snvl>

[7.0] APPROVAL SIGN OFF

By signing this document Westlake Chemical gives its acceptance of the functional specifications, understanding that any changes to the content presented in this document could result in a change in budget and/or schedule.

PLEASE REVIEW CAREFULLY. Final approval for completeness and accuracy is your responsibility. All site requirements should be accounted for in this document; if a requirement is not explicitly stated, it most likely will not be included in the final website solution. Therefore, in addition to answering any questions that may be documented, please make note of any corrections, additions or deletions. For ease of dialogue and reference, each requirement has been labeled with a unique ID.

Development work cannot proceed until this completed form is returned to Square Root Interactive. Delaying of approval could cause a delay in completing your project.

Please indicate approval status below, sign and return.

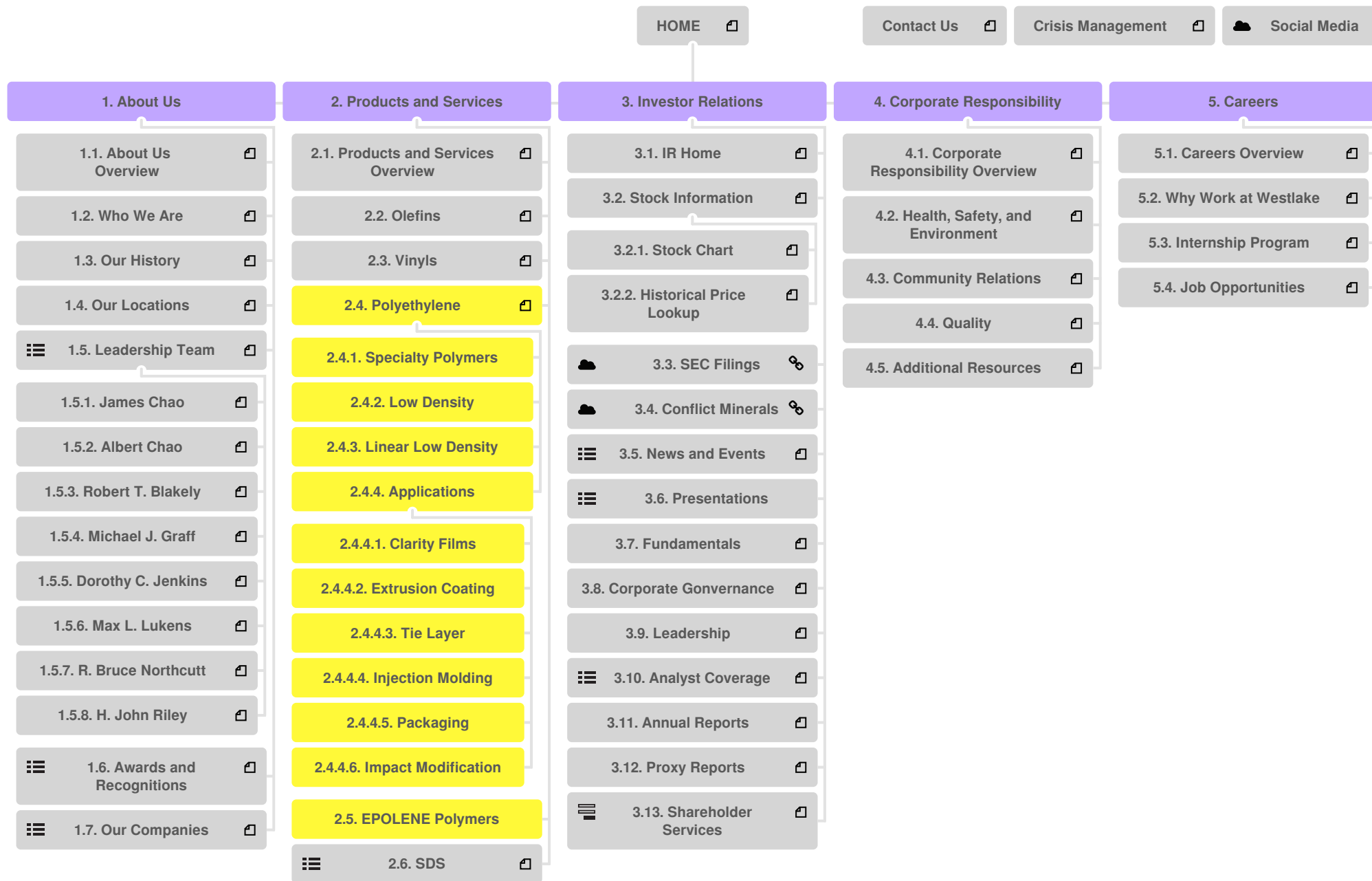
- ☐ Document is OK – Proceed with project
- ☐ Document is OK – With corrections indicated

I have reviewed the requirements thoroughly and have indicated my approval status above. I understand that following this approval my project will proceed to the next phase per my instructions.

Client Name (Please Print)

Client Signature

Date



California Supply Chain Transparency



Privacy Policy



KEY



External

An object outside of the scope of the design, but whose presence needs to be accounted for. A direct mail campaign that drives users to the site would be a good example.



Form

Input/output interaction with a system. This could be a basic data entry form or something more AJAX-y.



Listing

A view that presents many links to content, such as tag view, an archive, or search results. It's similar to a Portal, but this is usually more of a utility view.

NOTES

HOME	displays billboard image, simple copy content, news list, fast facts, pdf download
Contact Us	simple copy content
Crisis Management	simple copy content
1.1. About Us Overview	possibly structured content, links to business units Olefins and Vinyls
1.2. Who We Are	simple copy content
1.3. Our History	simple copy content with video and a section that links to historical timeline pages
1.4. Our Locations	custom map with push pin icons for locations
1.5. Leadership Team	image and listing
1.5.1. James Chao	simple copy content and image
1.5.2. Albert Chao	simple copy content and image
1.5.3. Robert T. Blakely	simple copy content and image
1.5.4. Michael J. Graff	simple copy content and image
1.5.5. Dorothy C. Jenkins	simple copy content and image
1.5.6. Max L. Lukens	simple copy content and image
1.5.7. R. Bruce Northcutt	simple copy content and image

NOTES

1.5.8. H. John Riley	simple copy content and image
1.6. Awards and Recognitions	simple copy content listing awards
1.7. Our Companies	listing of other companies with image and description for each item displayed as a list
2.1. Products and Services Overview	simple copy content and list of sub pages with links... ensure this is changed to link to internal pages upon migration
2.2. Olefins	simple copy content
2.3. Vinyls	simple copy content
2.4. Polyethylene	changes to internal link Could use descriptive text content from poly landing page with images and links to sub sections Specialty Polymers Low Density Linear Low Density Applications
2.6. SDS	Displays a list and has a way to search by text and by product. Note that Poly is already listed. Does this mean SDS docs from current Poly site don't need to be migrated?
3.1. IR Home	Page title format not consistent with overview pages in all other sections. Also displays sub menu
3.2. Stock Information	includes textual stock info. suspect a feed
3.2.1. Stock Chart	visual stock chart
3.2.2. Historical Price Lookup	has a date input field, not sure that this is working

NOTES

3.5. News and Events	recent news and events listed
3.7. Fundamentals	simple copy content
3.8. Corporate Governance	displays reference table and pdf downloads at bottom of page
3.9. Leadership	one image with list of leadership team
3.10. Analyst Coverage	list of analysts
3.11. Annual Reports	downloadable files listed
3.12. Proxy Reports	downloadable files listed
3.13. Shareholder Services	form
4.1. Corporate Responsibility Overview	simple html content
4.2. Health, Safety, and Environment	simple copy content
4.3. Community Relations	simple copy content
4.4. Quality	simple copy content with downloadable pdfs
4.5. Additional Resources	simply copy content display externa links
5.1. Careers Overview	page has simple copy content and quick links to sub pages at bottom of page that take user to about section
5.2. Why Work at Westlake	simle copy conten
5.3. Internship Program	simply copy content

NOTES**5.4. Job Opportunities**

simple copy content that offers links to open positions. Links go to third party site.

California Supply Chain Transparency

simple copy content

Privacy Policy

simple copy content



Polyethylene

[Products & Services](#) / [Polyethylene](#)

Products

[Specialty Polymers](#)[Low Density](#)[Linear Low Density](#)

Applications

[Clarity Films](#)[Extrusion Coating](#)[Tie Layer](#)[Injection Molding](#)[Packaging](#)[Impact Modification](#)

Polyethylene

Westlake's Specialty Polymers business is focused on flexibility and diversification. Through our emphasis on research and development we continue to engineer new resins to meet the demanding needs of today's and tomorrow's innovative applications. We offer an extensive line of ethylene acrylate and vinyl acetate copolymers (EVA, EnBA, and EMA), maleated tie layer resins (TYMAX® GT), lower density PE plastomer's (MXSTEN® CV) and specialty 0.946 medium density extrusion coating resins. The Specialty Polymers business is constantly growing and we are continuing to expand our portfolio.

Westlake Customer Service, we make the difference...

Lorem ipsum dolor sit amet, consectetur adipiscing elit. Donec iaculis varius nisi nec eleifend. Nunc efficitur convallis sapien, vel efficitur sem. Vestibulum erat magna, facilisis et feugiat at, porta quis sapien. Nam faucibus vel sapien sed eleifend. Duis vel tincidunt tortor. Integer vitae tellus congue, rhoncus sem vel, blandit quam. Cras ac augue in massa tincidunt dictum eget at massa. Integer vestibulum, lectus id vulputate ultricies, leo turpis eleifend massa, eget accumsan erat lectus et odio. Nam a aliquam enim, nec vestibulum eros. Phasellus sodales porttitor convallis. Sed pulvinar nisi eros, id faucibus sapien vulputate non. Cras interdum consequat elementum. Sed condimentum sollicitudin faucibus.



Polyethylene

[Products & Services](#) /

Specialty Polymers

Westlake's Specialty Polymers business is focused on flexibility and diversification. Through our emphasis on research and development we continue to engineer new resins to meet the demanding needs of today's and tomorrow's innovative applications. We offer an extensive line of ethylene acrylate and vinyl acetate copolymers (EVA, EnBA, and EMA), maleated tie layer resins (TYMAX® GT), lower density PE plastomer's (MXSTEN® CV) and specialty 0.946 medium density extrusion coating resins. The Specialty Polymers business is constantly growing and we are continuing to expand our portfolio.

EPOLENE® Polymers



Westlake Chemical Corporation offers a series of medium to low molecular weight polyethylene or polypropylene polymers under the EPOLENE® trade name.

EMAC® and EBAC® Acrylate Resins



Westlake Chemical Corporation offers a series of medium to low molecular weight polyethylene or polypropylene polymers under the EPOLENE® trade name.

EMAC+® and EBAC+® Blocked Copolymers



Westlake Chemical Corporation offers a series of medium to low molecular weight polyethylene or polypropylene polymers under the EPOLENE® trade name.

ELEVATE® Ethylene Vinyl Acetate Copolymers



Westlake Chemical Corporation offers a series of medium to low molecular weight polyethylene or polypropylene polymers under the EPOLENE® trade name.

MXSTEN® Plastomers



Westlake Chemical Corporation offers a series of medium to low molecular weight polyethylene or polypropylene polymers under the EPOLENE® trade name.

TYMAX® Grafted Tie-Layer Polymers



Westlake Chemical Corporation offers a series of medium to low molecular weight polyethylene or polypropylene polymers under the EPOLENE® trade name.














EMAC® and EBAC® Acrylate Resins

[Products & Services](#) / [Polyethylene](#) / [Specialty Polymers](#)

- Are soft, pliable, and tough at ambient and freezing temperatures and exhibit excellent ESCR and high CoF. These properties provide unique advantages in:
 - Films with excellent toughness, drapability for gloves, quiet film wraps, and heavy-wall films for special medical uses.
 - Injection molded articles such as squeeze bottles and bellows
 - Extrusion profiles such as tubing, squeeze tubes, and flexible hose components
 - Nonskid and high CoF applications
- Exhibit high-solids fillability and compatibility with a wide range of polymers. This facilitates their use as bases for all-purpose concentrates for addition to a wide spectrum of polymers.
- Processes like LDPE. Broad processing range of 165 – 330 C (325 – 620 F) that is excellent for viscosity matching in coextruded films, coatings, sheeting, and molded structures. No special equipment or processing conditions are required. Noncorrosive to extrusion equipment. Excellent drawdown for thin films. Low neck-in for extrusion coating and laminating versatility.
- The high filler acceptance of EMAC® and EBAC® resins makes possible the processing of high additive concentration compounds.
- Adhesion to many substrates such as: polyethylene, polystyrene, polypropylene and OPP.
- Broad Chemical Resistance
- Elastic Properties
- Resistance to fatigue and crazing
- Adhere to and are compatible with a wide range of materials including paper, polyolefins, oriented polyolefins, polyesters, Ionomers, PVdC, unplasticized PVC, and other polar polymers.
- For use as a heat-seal layer, adhesive layer, or modifier for cost/performance enhancement.

EMAC® Acrylate Resins

Grade	Acrylate %	MI	Density	Data Sheet	SDS	Application
SP2202	21.5 MA	0.4	0.943		SDS	Films, co-extrusion, tie-layer, impact modifier, and compounding
SA2413	16.5 MA	0.6	0.940		SDS	Films, tie-layer, impact modifier, shrink tubing, and compounding
SP2205	20.0 MA	2.0	0.941		SDS	Co-extrusion, compounding, impact modifier, blow molding, and extrusion coating
SP2255	17.0 MA	2.1	0.942		SDS	Thin, soft blown or cast films, medical packaging
SP2260	24.0 MA	2.1	0.944		SDS	Laminations, tie layers, compounding, impact modifier, and heat-seal applications
SP2404	18.5 MA	2.5	0.941		SDS	Blown and cast films, flexible packaging, tie-layer, compatibilizer
SP2207	20.0 MA	6.0	0.941		SDS	Extrusion coating, tie layers, and master batch
SP2403	24.0 MA	6.5	0.945		SDS	Co-extrusion, tie layers, compounding, and laminations
SP2409	20.0 MA	8.0	0.941		SDS	Films, co-extrusion, tie-layer, impact modifier, and compounding
SP2268	24.0 MA	10.0	0.945		SDS	Injection molding, compounding, and laminations
SP2220	20.0 MA	20.0	0.941		SDS	Extrusion coating of fabrics and irregular surfaces, and injection molding

EBAC® Acrylate Resins

Grade	Acrylate %	MI	Density	Data Sheet	SDS	Application
SP1802	22.5 BA	0.5	0.927		SDS	Blown film, compounding and co-extrusion
SP2810	16.0 BA	1.4	0.924		SDS	Blown film, compounding and co-extrusion
SP1806	17.5 BA	7.3	0.925		SDS	Extrusion coating, laminating, compounding

EPOLENE® Polymers

[Products & Services](#) / [Polyethylene](#) / [Specialty Polymers](#)

Westlake Chemical Corporation offers a series of medium to low molecular weight polyethylene or polypropylene polymers under the EPOLENE® trade name.

They are useful in the plastics industry as lubricants for PVC, processing aids, mold release agents, dispersion aids, and coupling agents. They are also widely used as base polymers for hot-melt adhesives and pavement-stripping compounds as well as petroleum wax modifiers for use in candles, investment casting, cable filling, and various paperboard coatings. Numerous types of EPOLENE® polymers are available, and properties can be selected to fit various processing operations. Many of these polymers meet U.S. FDA food additive regulations for various applications.
































































Sales Literature

Download sales literature pdfs by clicking links below.

- EP based Petroleum Wax Modifiers
- Epolene for Industrial Applications
- Epolenes used as candle additives
- EP based Hot Melt Adhesives

- Epolene E-43 as a Coupler
- Replacing FT waxes with Epolenes
- Epolene Based Asphalt Modification
- Epolene C-26 Formula Information

Technical Data Sheets 7 Product Sales Specifications

Technical Data Sheets	Product Sales Specifications	Safety Data Sheets
 C-10	 C-10	 C-10, C-12
 C-13	 C-13	 C-13
 C-13P	 C-13P	 C-13P
 C-15	 C-15	 C-15
 C-15P	 C-15P	 C-15P
 C-16	 C-16	 C-16
 C-16P	 C-16P	 C-16P
 C-17	 C-17	 C-17
 C-17P	 C-17P	 C-17P
 C-18	 C-18	 C-18
 C-19	 C-19	 C-19
 C-23	 C-23	 C-23
 C-26	 C-26	 C-26
 E-10	 E-10	 E-10, E10J
 E-14	 E-14	 E-14
 E-14P	 E-14P	 E-14P
 E-14E	 E-14E	 E-14E
 E-14EP	 E-14EP	 E-14EP
 E-16	 E-16	 E-16
 E-20	 E-20	 E-20
 EE-2	 EE-2	 EE-2