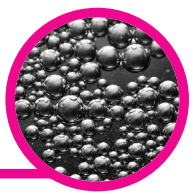
The Power of ORE

Extracting Value Through Enhanced Productivity

Delivering More



Extract More Value

From increasing cost pressures, to more stringent environmental and safety regulations, to declining ore grades, the mining industry faces numerous challenges impacting profitability. Dow is helping to address these challenges with the Power of ORE – a wide range of products and expertise to address a broad spectrum of mining, mineral processing and remediation challenges.

The Power of ORE gives companies striving to extract more value from mining operations a real choice in the marketplace. Dow can help enable **O**perational efficiency, boost **R**ecovery enhancement and facilitate **E**nvironmental protection.

Dust Control

Dust from mining operations can increase maintenance costs, decrease productivity, threaten the health of workers and adversely affect community support and social license to operate. Dow provides a range of solutions to help our customers tackle their dust emission challenges. From dust suppressants to soil stabilization solutions, we can help you control dust emission from mine roads, tailings impoundments, waste rock dumps, stock piles and other exposed surfaces.

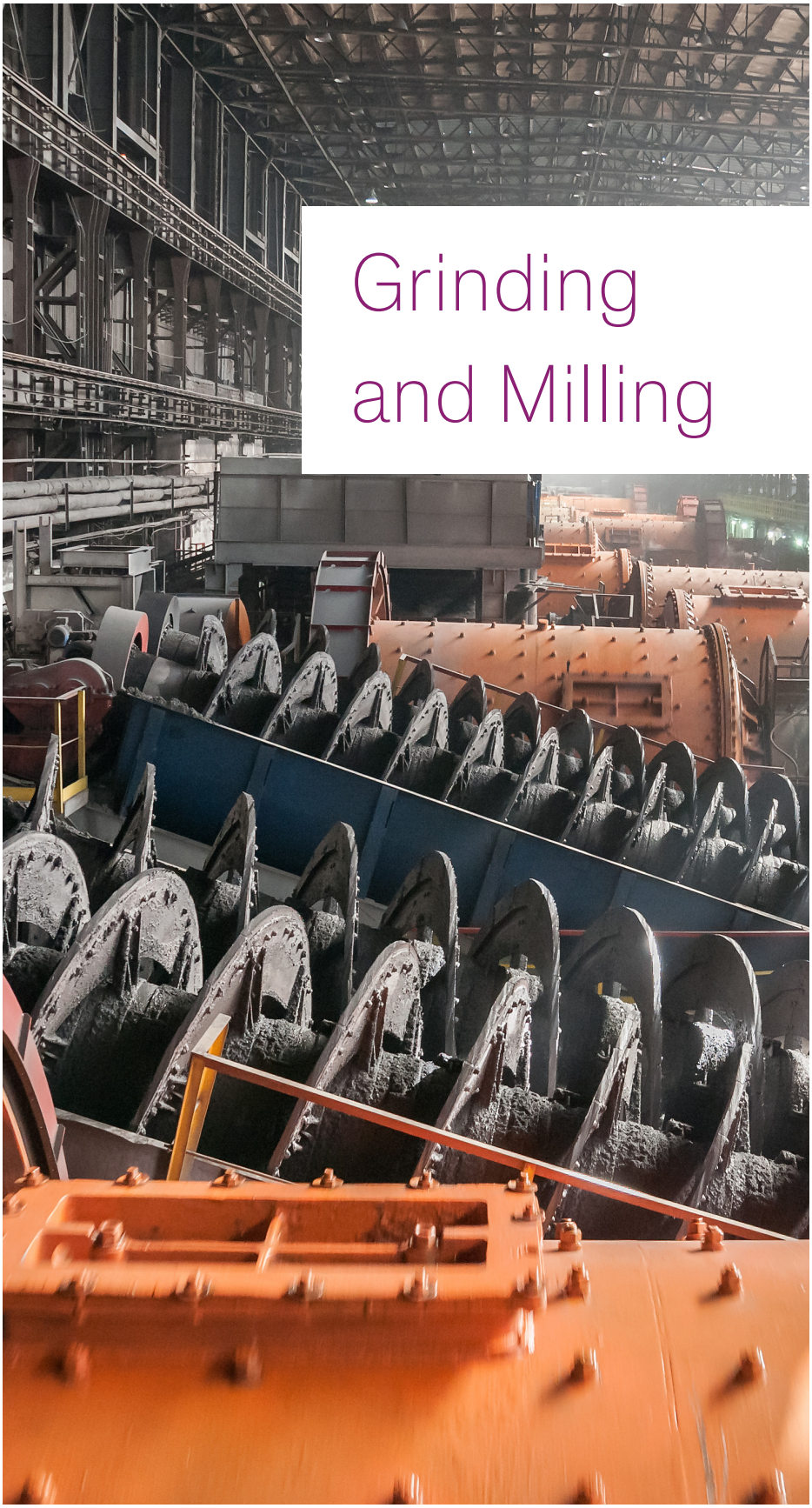
Dust Control Offerings and Solutions

- **PAVECRYL™ series** of specially formulated **acrylic emulsion polymers** offer triple action technology to:
  - Reduce water surface tension for increased wetting capacity and deeper water penetration
  - Enhance soil water retention
  - Provide optimal bonding and elasticity when applied to fine or granular materials
- Dow also offers a range of **surfactants** to increase water's effectiveness at settling and suppressing fine particles.

Applied as a dust suppressant, Dow's line of PAVECRYL and surfactant products helps improve the quality of roads and reduce water consumption.

Improve water's effectiveness at settling, suppressing and retaining fine particles

Grinding and Milling



Efficient and effective separation of metals and minerals is essential in recovering the most value from mining operations. Dow offers a wide range of solutions – including proprietary chemicals such as rheology modifiers, amines, surface-active agents and dispersants – to help improve grinding efficiency and productivity. Dow also provides solutions to control dust generation from grinding processes.

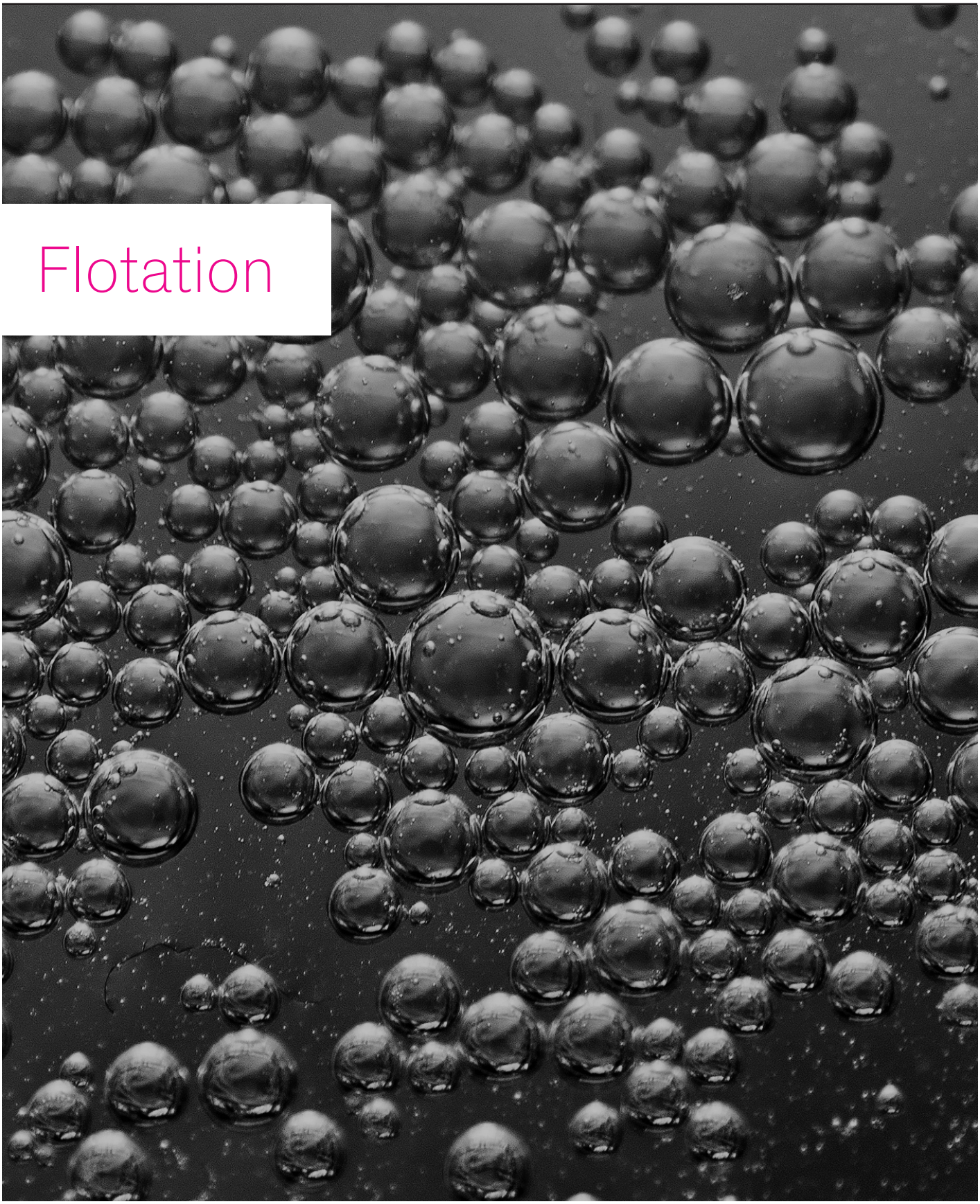
Grinding and Milling Offerings and Solutions

- Grinding Aids
  - **ACUMER™ 9000 Series** includes acrylic polymer dispersants and rheology modifiers for industrial mineral and metallic ore processing.
  - **CARBOWAX™** polyethylene glycols (PEGs) help improve grinding processes.
  - Dow also offers industrial grade **propylene glycols** for grinding and lubricants.
- Surfactants
  - **DOWFAX™** anionic surfactants
  - **ECOSURF™** biodegradable* non-ionic surfactants
  - **TERGITOL™** non-ionic surfactants
  - **TRITON™** anionic and non-ionic surfactants

Maximize grinding and milling throughput, minimize energy costs

*Readily biodegradable as defined in OECD Guidelines for the Testing of Chemicals, Section 3 (Rev. 23, March 2006)

Flotation



Separation of minerals through an efficient flotation process is important in recovering the most value from extract ore operations. Dow's wide range of integrated solutions helps our customers optimize their flotation processes. Dow offers solutions for sulfide and non-sulfide minerals as well as non-metallic ore processing, including coal.

Separate more value with efficient flotation

Flotation Offerings and Solutions

- Depressants
  - **ANTISOL™ cellulose ethers** and **CELLOSIZE™ cellulose ethers** assist in contaminant removal.
  - Dow also offers a variety of **ethyleneamines** for contaminant removal.
- Dispersants and Rheology Modifiers
  - **ACUMER™ acrylic polymers** help disperse clay and reduce viscosity in high-concentration flotation systems.
- Frothers
  - **DOWFROTH™** industry-leading line of polyglycol ethers aids in metals extraction and all froth flotation needs.
  - Dow also offers a variety of **alcohols** and **ketones** to aid in frothing processes.
- Defoamers and Surfactants
  - **DOWFAX™** anionic surfactants
  - **ECOSURF™** biodegradable* non-ionic surfactants
  - **TERGITOL™** non-ionic surfactants
  - **TRITON™** anionic and non-ionic surfactants
  - Dow also offers **polypropylene glycols** (PPGs) with molecular weights from 250 to 4000.
- Separation Aids and Flocculants
  - **UCARFLOC™** high molecular weight polyethylene oxides (PEOs) exhibit unique attraction to colloidal silicates.

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Hydrometallurgy

An essential evolution: extraction with precision

Base, precious and rare earth metals are essential raw materials for electronic devices, electrical generation and many of today's consumer and industrial products. Mining these metals has evolved to a specialized skill. Dow enables highly sophisticated hydrometallurgy operations and processes – from in-situ leaching (ISL) to selective recovery and purification. Through the development of metal selective media and ion exchange (IX) process expertise, Dow products and technologies have helped the mining industry recover valuable metals in an efficient and environmentally sustainable manner for decades.

Hydrometallurgy Offerings and Solutions

- **AMBERSEP™ ion exchange resins** assist in the extraction, separation and purification of base, precious and rare earth metals, as well as uranium.
  - Available in a wide range of functional groups and particle sizes for extracting precious and industrial metallic ions from process solutions
- **PRIMENE™ extraction solvents** aid in the extraction of primary and secondary metals, to include gold, iridium, thorium, rare earth metals, uranium, molybdenum, scandium, palladium, platinum, vanadium, rhenium and mercury.

In transport and handling systems for slurries, it is important to avoid the settling of solids in order to optimize flow through long distances of pipeline. Corrosion management is also important in maintaining operational longevity of slurry transport assets. Dow provides a wide range of solutions to help our customers optimize slurry management, including acrylic polymers that disperse and stabilize mineral slurries, and biocides that protect against microbial-induced corrosion (MIC).

Slurry Management Offerings and Solutions

- **ACUMER™ acrylic polymers** help disperse and stabilize high-solids mineral slurries, and work efficiently with a wide variety of industrial minerals such as calcium carbonate and kaolin.
- **AQUCAR™ broad spectrum microbiocides** address critical performance needs including quick kill of microbes and corrosion management.

Slurry Management

Water Supply and Reuse

Mining is one of the largest industrial uses of water globally, and managing this use is critical to sustainable operation. Dow is the largest global supplier of advanced water treatment components. Dow provides integrated solutions designed to help deliver the right water quality from any natural water source that is locally available. Dow's water treatment technology helps facilitate a secure, safe and reliable water supply and enables beneficial water reuse for local mining operations.

Enabling beneficial water reuse for local mining operations

Water Supply and Reuse Offerings and Solutions

- Membrane Filtration
  - **FILMTEC™ Reverse Osmosis (RO) and Nanofiltraton (NF) Membranes** are specially designed for demineralizing brackish water or desalinating salt water for process feed and recycle water streams.
  - **DOW™ Ultrafiltration (UF)** outside-in fiber technology sets the standard for suspended solids removal for RO pre-treatment and wastewater treatment applications.
- Particle Filtration
  - **TEQUATIC™ PLUS Filter** combines the power of continuously cleaning, cross-flow filtration with centrifugal separation and solids collection into one device.
- Antiscalants and Biocides
  - **ACUMER™ 1000 – 5000 Series polymers** aid in water treatment as scale inhibitors and dispersants for cooling-water systems, boilers and membrane filtration units.
  - **VERSENE™ and VERSENEX™ Chelating Agents** remove many types of scale deposits that can cause reduced flow rates and heat transfer efficiency.
  - **AQUCAR™ broad spectrum microbiocides** address critical performance needs including quick kill of microbes and corrosion management.

Tailings and Waste Streams

Proper treating of mine tailings and waste streams enables miners to meet more stringent discharge requirements and to recover water and additional metals. Dow's range of integrated solutions provides the ability to selectively remove suspended solids, precipitated salts, heavy metals and metal oxides – enabling miners around the world to choose the right technology to meet their local treatment needs.

The right solutions to meet discharge requirements, worldwide

Tailings and Waste Streams Offerings and Solutions

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- Particle Filtration
  - **TEQUATIC™ PLUS Filter** combines the power of continuously cleaning, cross-flow filtration with centrifugal separation and solids collection into one device.
- Ion Exchange Resins
  - **AMBERSEP™ ion exchange resins** are available in a wide range of functional groups and particle sizes for extracting precious and industrial metallic ions from process solutions.
- Flocculants
  - **UCARFLOC™ water-soluble resins** effectively adsorb onto many colloidal materials and perform as efficient flocculating agents for silica, clays and oxidized coal fines.

Acid Mine Drainage

Acid mine drainage (AMD) waters with high contamination can be cost-effectively treated with tailored nanofiltration (NF) membranes, optimized operation protocols and appropriate system designs. Dow's membrane technology has intrinsic advantages over alternative separation technologies to meet broader purification and separation challenges for these drainage waters. Dow technologies deliver a reduced sulfate, manganese, heavy metal and fluorine concentration to generate permeate flows that meet local regulatory levels for disposal and/or reuse.

Meeting purification challenges with cost-effective innovation

Acid Mine Drainage Offerings and Solutions

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Asset Integrity

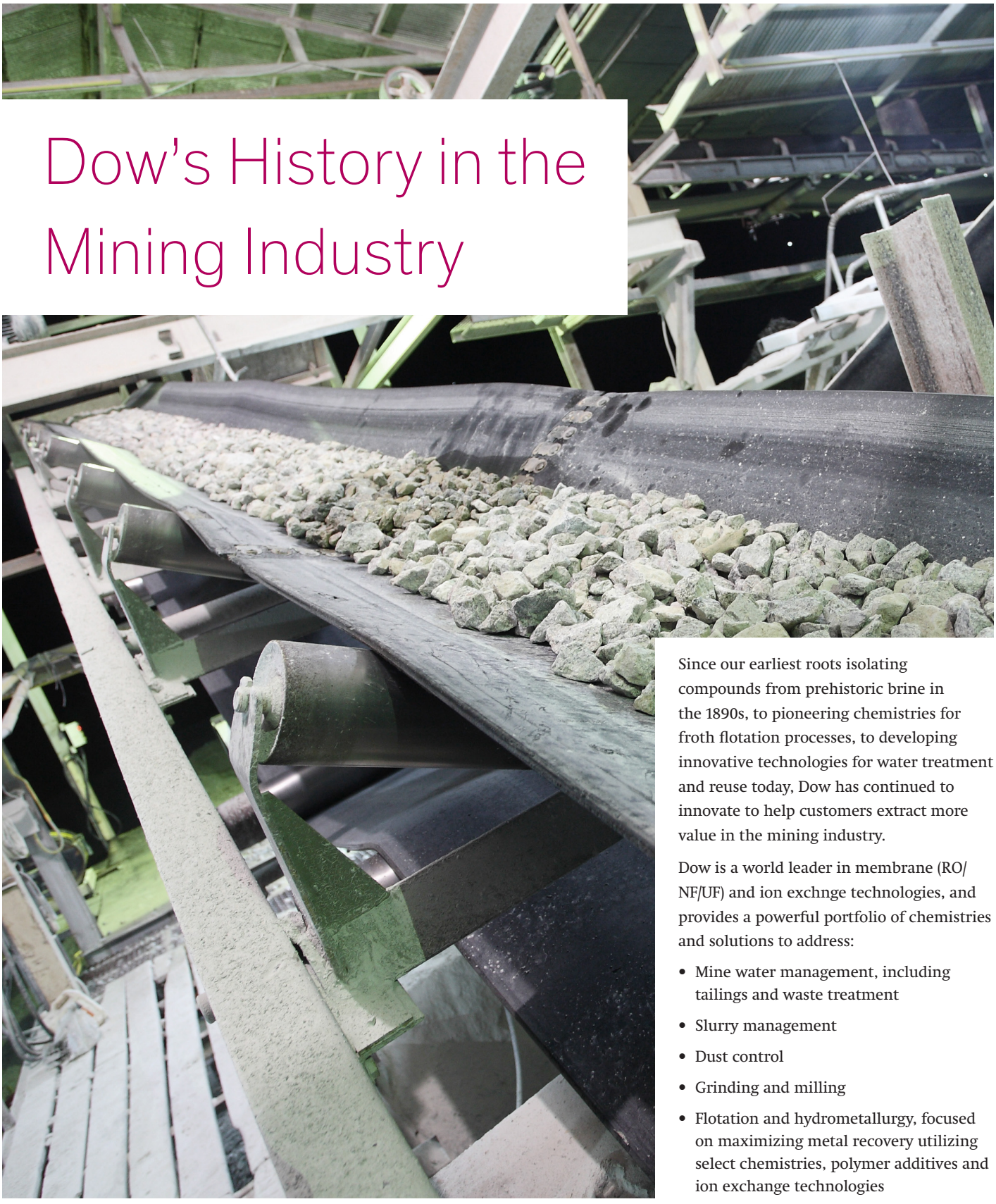
Protecting assets – and people – is a critical consideration in the often-harsh working environments surrounding mining operations. Dow delivers polyester-based solutions for mining that have been proven to extend the life of metal components by providing a durable, protective coating with the added benefit of reducing noise in the working environment.

Asset Integrity Offerings and Solutions

- **HYPERLAST™** and **DIPRANE™** prepolymers and systems are specially formulated to maximize performance and extend the life of your operations. Both offer excellent wear and tear properties and, along with their impact and abrasion resistance, are an ideal choice for:
  - Transportation of abrasive slurries
  - Separation and sizing of aggregate
  - Movement of solid materials from face to processing area
  - Cleaning of conveyor belts
  - Chemical resistance benefiting the ore extraction and concentration process
  - Applications requiring fire- and static-resistance

Delivering solutions to extend the life of your operations

Dow's History in the Mining Industry



Since our earliest roots isolating compounds from prehistoric brine in the 1890s, to pioneering chemistries for froth flotation processes, to developing innovative technologies for water treatment and reuse today, Dow has continued to innovate to help customers extract more value in the mining industry.

Dow is a world leader in membrane (RO/NF/UF) and ion exchnge technologies, and provides a powerful portfolio of chemistries and solutions to address:

- Mine water management, including tailings and waste treatment
- Slurry management
- Dust control
- Grinding and milling
- Flotation and hydrometallurgy, focused on maximizing metal recovery utilizing select chemistries, polymer additives and ion exchange technologies

Commitment to Sustainability and Safety

Dow's commitment to sustainability is infused into the very DNA of our Company. In 2006, we launched our current set of 2015 Sustainability Goals, which focus not only on the Company's footprint in our own operations but also our handprint through the positive impact of Dow products and their role in global sustainable development. Focused on addressing global challenges like water, food, climate change and energy, Dow has made significant progress against these goals. For more information on how sustainability is integrated into all aspects of our business and operations, please visit www.dow.com/sustainability.

Product Stewardship and Safety

Dow has a fundamental concern for all who make, distribute, and use its products, and for the environment in which we live. This concern is the basis for our product stewardship philosophy by which we assess the safety, health, and environmental information on our products and then take appropriate steps to protect employee and public health and our environment. The success of our product stewardship program rests with each and every individual involved with Dow products – from the initial concept and research, to manufacture, use, sale, disposal, and recycle of each product.

Dow strongly encourages its customers to review both their manufacturing processes and their applications of Dow products from the standpoint of human health and environmental quality to ensure that Dow products are not used in ways for which they are not intended or tested. Dow personnel are available to answer your questions and to provide reasonable technical support. Dow product literature, including safety data sheets, should be consulted prior to use of Dow products. Current safety data sheets are available from Dow.

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