

# Every little helper contributes

Profit from sustainability with our  
formulation additives for paints  
and coatings



 **BASF**  
We create chemistry



In 2050

9

billion people  
but only

1

earth





“Sustainable development is development that meets the needs of the present, without compromising the ability of future generations to meet their own needs.”

United Nations 1987, “Report of the World Commission on Environment and Development (WCED)”

## Sustainability – What does it mean in paints & coatings?

At BASF we see chemistry as an enabler for innovation and sustainability. In the paints and coatings industry, that means we consistently create raw materials that meet tomorrow’s needs today. These include dispersions, resins and pigments as well as formulation additives that enhance the environmental compatibility and resource efficiency of your systems while improving their impact on health and wellbeing. Formulation additives are the ‘little helpers’ that typically make up just a tiny fraction of the final formulation, yet have effects that can make all the difference.

The opportunity behind the responsibility: with the need for more sustainable solutions increasing on a global scale, our future-oriented additives can help you take advantage of large and dynamically growing market segments.

### Addressing the challenge from three sides

BASF is committed to developing solutions for greater sustainability in three major areas:

- Resources, environment and climate
- Food and nutrition
- Quality of life

For more than 150 years, BASF has worked closely with employees, shareholders, suppliers, customers and regulators to achieve more efficient, environmentally and socially compatible solutions and processes throughout the value chain. Based on our clear strategic commitment – “We create chemistry for a sustainable future” – the specialists at BASF Formulation Additives help cut through the complexity and turn sustainability into your opportunity.

### A global priority

Societies, international organizations, governments and the international business community are increasingly aware of the need to take action to balance economic, environmental and social interests. In 2010 alone, the world’s population consumed 1.5 times the renewable capacity of our planet. If the trend continues, we will need resources equivalent to three Earths to meet demands by 2050. The international scientific community has sent a clear message: inaction is not an option.



# Our little helpers – And what they can do for you

The growing demand for more environmentally and socially compatible products from regulatory bodies and society as a whole make sustainability a key factor in future growth and value creation – and the paints and coatings industry is no exception. Addressing the demand calls for ingenuity, with a view to all opportunities to enhance sustainability. Our additives have the potential to modify your products in significant ways – and set to them apart from the competition.

## The demand for more sustainable products is growing due to:

- Increasing consumer awareness and expectations
- New sustainability regulations and standards
- Proliferation of different eco-labels

## Eco-labelling is increasing – In frequency and importance



### Clear orientation

BASF Formulation Additives takes out the guesswork with an easy overview of our solutions. Based on the key drivers and issues within the industries and regions we serve, we have assessed the sustainability contribution of each of our products in its specific application and position in the value chain. This externally validated methodology, termed Sustainable Solution Steering, enables us to give you a clear view of our portfolio and how you can get the most out of it – for example, with our industry-specific Sustainability Quick Guides. Internally, the methodology also places us in a position to better understand your future needs and shape our innovations to fulfill them.

### Sustainable Solution Steering

No general standard is currently in place for assessing a product's contribution to sustainability in the paint and coatings industry. In response, BASF has developed the Sustainable Solution Steering methodology. It establishes clear evaluation criteria and process steps including roles and responsibilities in an internal set of guidelines. The Sustainable Solution Steering design and processes have been externally validated by PricewaterhouseCoopers AG Germany (PwC).

For more information about Sustainable Solution Steering visit [www.basf.com/sustainable\\_solution\\_steering\\_e](http://www.basf.com/sustainable_solution_steering_e)





## Sustainability drivers in the paints and coatings industry



### Durability

Products that are more resistant to exterior influences, such as harsh weather conditions, enable the formulation of paints with an extended lifespan, reducing consumption of raw materials.



### Efficiency

Boosting the efficiency of raw materials in use means getting more with less, conserving raw materials and reducing waste.



### Low odor

Consumers associate odor with an unhealthy atmosphere, reducing it enhances the sense of wellbeing.



### Low VOC

Reducing VOCs (volatile organic compounds) and S-VOCs (semi-volatile organic compounds) helps avoid unpleasant odors and contributes to a healthy living environment.



### Eco-labels

As indicators of various enhanced sustainability characteristics, eco-labels offer consumers orientation and give products a competitive advantage.



### Food-contact approval

Labeling as safe for food contact is essential for inks and coatings in food packaging.





#### Renewables

Use of renewable raw materials indicates that a product helps conserve the Earth's resources.



#### APEO-free

Avoiding the use of APEOs helps reduce potential health and environmental risks.



#### Tin-free

Avoiding the use of tin helps reduce potential health risks.



#### Free of preservatives

Avoiding the use of preservatives helps reduce potential health risks.



#### Phthalate-free

Avoiding the use of phthalates helps reduce potential health risks.



#### Enables water-based

Water as a carrier for paint ingredients can render solvents unnecessary, and important step toward more sustainable paints.



#### Enables high-solids

High-solid systems reduce solvents to a minimum.



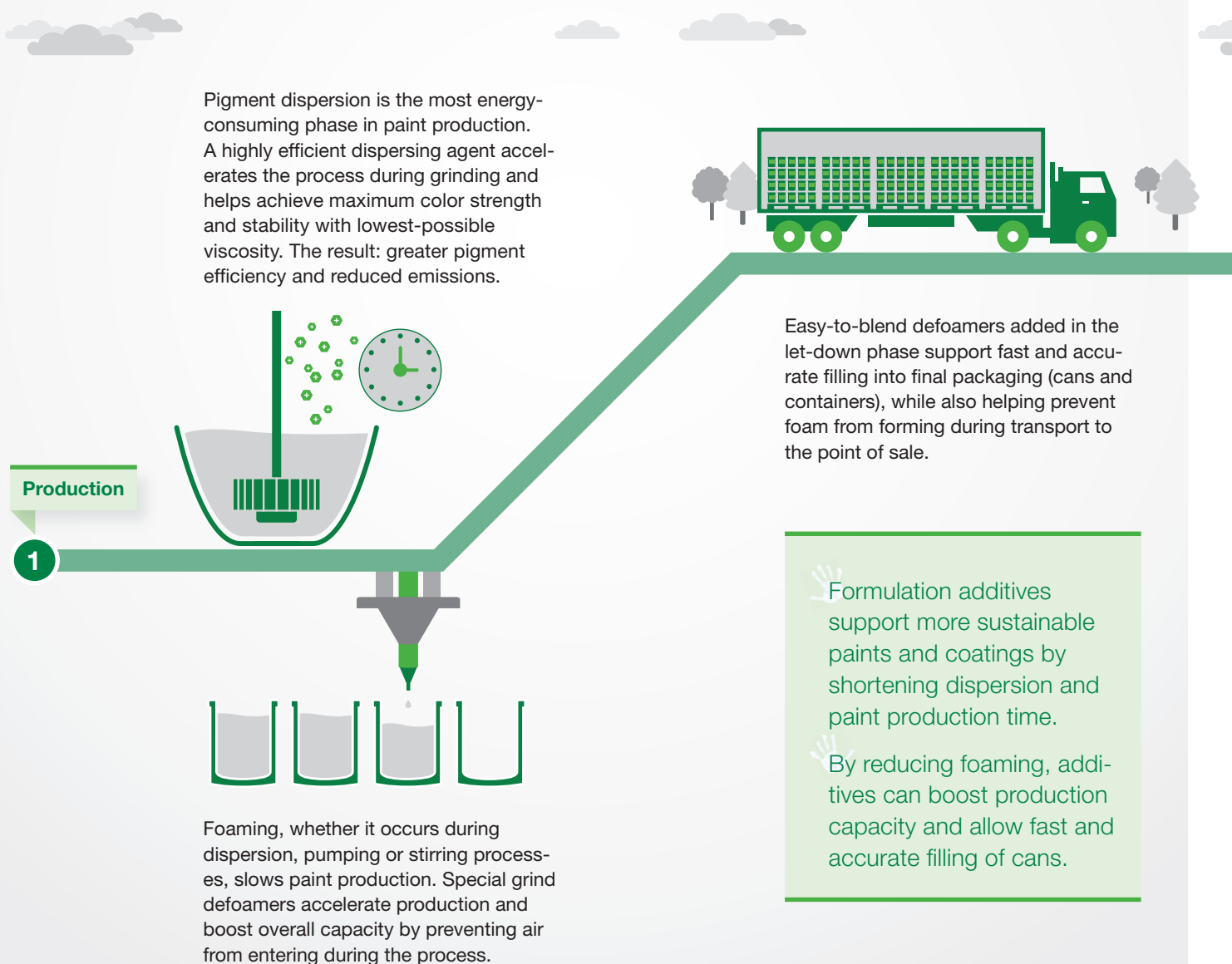
#### Fulfilling long term global regulatory and registration requirements

Our dedicated product stewardship team provides up-to-date and sound information on safety, health and environment (SHE) for our products far beyond legal requirements.



## Our contribution along the coatings value chain

Every step toward greater sustainability counts. That's why the experts at BASF Formulation Additives look for opportunities for improvement at every point throughout the paints and coatings value chain. Here are examples within three phases:

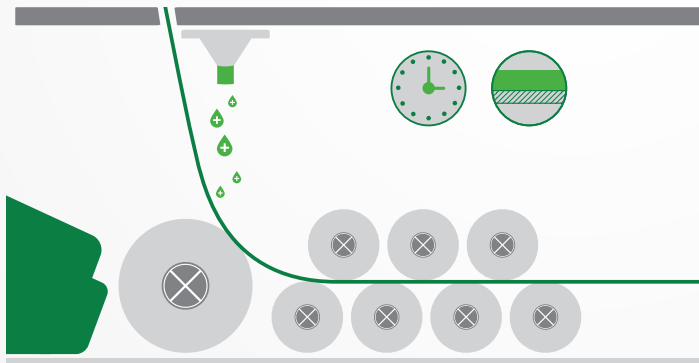




It goes without saying that one-coat painting conserves resources. Rheology modifiers control the flow properties of paints, reducing dripping while increasing hiding power and shelf life. An optimized blend of rheology modifiers ensures the right film thickness and desired coating smoothness, allowing lower usage of paint with an equal or increased lifespan.

## Application

2



In factory finishes, wetting agents allow for high-speed processes and reduced coating thickness while supporting defect-free final results. Thinner, continuous films lower energy and resource consumption.

By enabling one-coat coverage, drip-free paints and high-speed, defect-free factory coatings, formulation additives support resource efficiency.

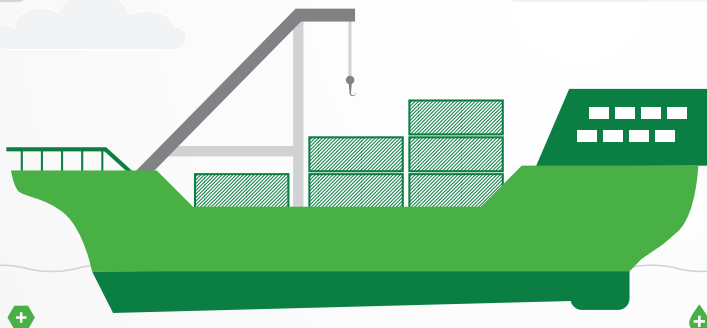
They can help achieve maximum color strength and lower paint usage with an equal or increased lifespan.

Those who use paints and coatings want long-lasting colors and well-protected surfaces, attributes that can be achieved efficiently with the right formulation additives. Film-forming agents, for example, support excellent latex particle fusion while enhancing resistance to soiling. The result: architectural coatings that last longer for reduced maintenance and resource conservation.



#### Service life

3



For maintenance and marine coatings, applying defect-free, high-thickness film in fewer passes is critical for fast turn-around, long service life and reduced emissions. Specially selected rheology modifiers, defoamers, dispersing agents and wetting agents all interact to help deliver coatings with the highest level of performance and sustainability.

Paints and coatings that perform better and last longer conserve resources in the final phase of the value chain: service life. Formulation additives play a key role in creating products that deliver the performance required for greater sustainability.

More details can be found on  
[www.basf.com/formulation-additives](http://www.basf.com/formulation-additives)



## Put our little helpers to work

To help you get the most out of our formulation additives, BASF has developed a series of concise fact sheets dedicated to different segments of the paint and coatings industry. Based on our independently validated Sustainable Solution Steering methodology, these Sustainability Quick Guides define the specific sustainability benefits you can achieve with our additives. They make it easier than ever for you to create more sustainable paints and coatings that deliver outstanding performance and set you apart from your competitors.

Feel free to request as many different Sustainability Quick Guides as you wish. You are also more than welcome to take advantage of our Technical Marketing team in developing your formulations – let's talk about putting our little helpers to work for you.

### BASF Formulation Additives has Sustainability Quick Guides dedicated to the following industries:

- Architectural coatings
- Automotive coatings
- General industrial coatings
- Furniture & flooring coatings
- Printing & packaging coatings

#### Our awards

##### Carbon Disclosure Project

Carbon Disclosure Leadership Index and Carbon Performance Leadership Index



##### Dow Jones Sustainability Index

BASF share included in DJSI World for twelfth consecutive year



##### China Green Companies Top 100

BASF honored for its commitment



##### LEED

(Leadership in Energy and Environmental Design)

BASF honored for sustainable construction



#### BASF memberships

##### Multi-stakeholders initiatives



##### Business initiatives



##### Voluntary initiatives of the chemical industry







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