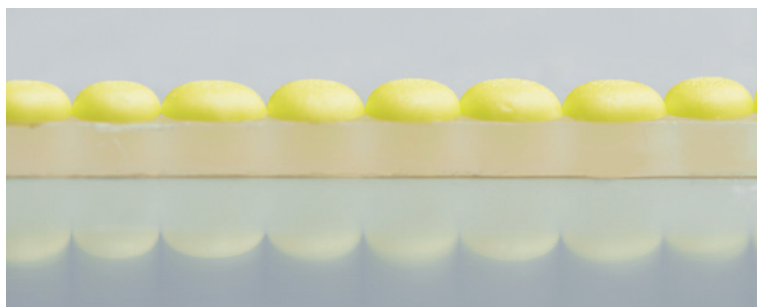


# TEGO® Sulpho

Release Agent for Sulphur Forming





# DESCRIPTION OF THE PROCESS

## THE PROCESS OF PASTILLIZING SULPHUR

The IPCO Rotoform® System ensures an economical and reliable granulation of premium quality pastilles. This process provides all the key advantages of this product form, such as:

### FROM LIQUID TO SOLID IN A SINGLE STEP

- Simple process requiring minimal equipment
- No scrubbing, screening, recycling, crushing or bulk cooling
- Well-defined cooling time for complete and efficient shock crystallization

## DUST-FREE PASTILLES OF UNIFORM SIZE

The patented Rotoform® System provides dust-free pastilles that are highly uniform, hemispherical, stable, thermally unstressed and of high purity and quality.

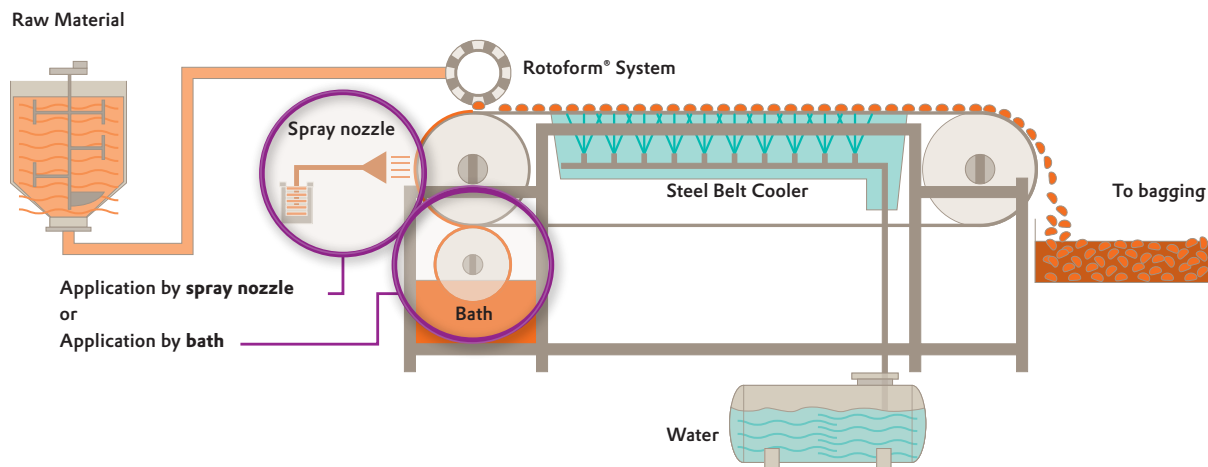
## ENVIRONMENT-FRIENDLY PROCESS

The Rotoform® System guarantees an environmentally friendly process with low noise emissions, low dust emissions and no need for air cleaning. Furthermore, there is no possibility of cross contamination between water and end product, due to the closed cooling water system.

## SEVERAL ECONOMICAL BENEFITS

The initial investment costs and the energy costs of the Rotoform® System are significantly lower than those of competitive systems. The inherent simplicity of the Rotoform® System also means fewer spare parts and easy cleaning.

### APPLICATION METHODS OF TEGO® SULPHO



# CHARACTERISTICS OF TEGO® SULPHO

## FEATURES

- Provides a homogeneous and stable, aqueous solution
- Cloud point fits to pastillizing operating conditions
- Low foaming
- Offers excellent release properties
- Sprayability of the solution
- Shear stability

## ADVANTAGES

- Better solubility in water
- No flocculation
- Better handling of the pastilles (no dust)
- Continuous operation
- Uniform sulphur pastille shape

## BENEFITS FOR THE BELT OPERATOR

- Reduced fixed costs due to less maintenance and easier handling
- Variable cost savings in the range of 10%
- Improved stability under hot and cold conditions
- Special design for IPCO spray system to ensure long term efficiency
- Non sticking sulphur – increased productivity

## Technical details

PHYSICAL PROPERTIES	TEGO® SULPHO 1	TEGO® SULPHO 2
Preferred process	Bath	Spraying
Dosage (dilution in water)	~ 3%	~ 15 %
Cloud point (based on recommended dilution)	41–45 °C	55–61 °C
Quantity required (per mt sulphur)	50 g	20 g
Dynamic Viscosity	2.000–3.400 mPas	650–1.050 mPas
Flash point (undiluted product)	> 65 °C	> 90 °C



# TEGO® SULPHO IS A MUST FOR PROFESSIONAL, ECONOMIC AND EFFICIENT SULPHUR PASTILLATION.

Innovation in terms of products, processes and solutions that make a difference for our customers is an on-going theme for Evonik. At the same time we are committed to environmental responsibility and sustainable socio-economic development.

Our leading position in interfacial chemistry, broad product technology, global technical service and distribution network makes Evonik a valuable partner for the refining industries.

For over a decade Evonik has been successfully supplying the release agent TEGO® Sulpho 1 to the sulphur forming industry for classical bath application systems. Our product ensures that sulphur droplets can be released from steel belts efficiently.

However, with increasing requirements to the process of sulphur pastillizing we have re-engineered our product. The innovation is a result of a unique partnership between IPCO and Evonik.

Launched several years ago, TEGO® Sulpho 2 has become the benchmark in terms of efficiency and performance for the industrial production of sulphur pastilles for modern spray application systems, offering improved handling and processing properties.

Our new technology offers significant improvement of pastille quality. Their so called "Hamburger" shape has the benefit of fewer brittle edges and less dust.



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