

# Petrochemicals PLANTS FOR THE PRODUCTION OF EXPANDABLE POLYSTYRENE (EPS)



#### ALWAYS AN IDEA AHEAD

## **Project information**

Customer: JSC Sibur Khimprom

**Plant:** Plant for the production of expandable poylstyrene (EPS)

Location: Perm, Russia

**Capacity:** 2 × 50,000 t/y

Licensor: Sunpor Technology S.A.

### Services of CAC

- $\rightarrow$  Project management
- $\rightarrow$  Detail engineering
- → Design specification for civil & structural steel, heating & ventilation
- $\rightarrow$  Deliveries
- $\rightarrow$  Construction supervision assistance
- $\rightarrow$  Start-up assistance and training

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### **Special features**

Wide product range; beside the production of EPS for general applications (moulded components, packaging, insulation, moulds, vehicle parts, decoration items), the production of EPS for the food industry and flameretardant EPS is possible

Plant capacity of up to 100 kt/y

Multiple-strand design to allow for the simultaneous production of EPS for packaging (food) and construction applications

Use of a binary initiator mixture to ensure process operation under intensified conditions

Use of a highly-efficient stabilising system to allow for the production of monodisperse polymer with a main fraction content of 96-98 % directly in the reactor

Addition of a specific component to the synthesis recipe of the polymer to regulate the molecular mass and to achieve an effective saturation of the polymer by means of blowing agents

Addition of a reactant in the synthesis stage to shorten the process of foam product making

Application of agents onto the polymer surface to reduce electrostatic charging and clumping of the polymer

Addition of the blowing agent at high conversion rate of the styrene to allow for process operation under safest conditions and permanent control of the suspension condition in the reactor



## Block diagram

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