

## Technology Offer

### Title:

New generation of polyester polyols for polyurethane plastics manufacturing (Ref: 09 PL 61AJ 3FMX )

### Abstract:

**A Polish research institute has developed a new generation polyester polyols for the polyurethane plastics manufacturing. They are using vegetable oils and waste materials (about 80% of charge) instead of materials of petrochemical origin. Partners for technical cooperation or joint venture are sought.**

### Description:

A Polish research institute specialized in industrial chemistry has developed new generation of polyester polyols for polyurethane plastics manufacturing.

The new, original technology of production of polyester polyols for polyurethanes consists of using vegetable oils and waste materials (about 80% of charge instead of materials of petrochemical origin).

The main advantages of this technology:

- simplification of polyester polyols processing,
- using of vegetable oils and waste materials instead of petrochemical materials,
- obtaining of polyester polyols with beneficial properties (a low viscosity and the "tailor made" functional groups),
- wide application in polyurethane products: polyurethane adhesives, polyurethane foams, polyurethane binders, polyurethane coatings.

Economical and ecological benefits:

- economical – using of renewable materials and waste materials decreases the cost of raw materials (about 25%),
- ecological – using of waste materials decreases the amount of condensate which is forming during process.

### Innovations and advantages of the offer

Innovation aspects

- simplification of the polyester polyols processing,
- using of vegetable oils and waste materials instead of petrochemical materials,
- obtaining polyester polyols with beneficial properties (a low viscosity and the "tailor made" functional groups),
- wide application in polyurethane products: polyurethane adhesives, polyurethane foams, polyurethane binders, polyurethane coatings.

Main advantages

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- ecological – using of waste materials decreases the amount of condensate which is forming during process.

### List of Keywords

Technology

- Materials Technology
- Plastics, Polymers
- Waste Management
- Recycling, Recovery

#### Market

- Chemicals and Materials
- Plastic fabricators
- Polymer (plastics) materials

#### **Current Stage of Development**

Available for demonstration

#### **Exploitation of RTD Results**

Others

#### **Collaboration Type**

- Joint Venture Agreement
- Joint further development
- Adaptation to specific needs

#### *Comments*

- Type of partner sought: industry, research.

- Specific area of activity of the partner: producers of polyurethane plastics , researchers involved in a similar research.

- Task to be performed by the partner sought: joint development, implementation, help in adaptation to specific needs.

#### **Contact Details**

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