

### 1. Product Identification

**Product Name:** Pangel  
**Barcode:** 8606105499330  
**Appearance:** Fine-grain granules, white to bright yellow.  
**Chemical composition:** Thermally modified corn starch, pregelatinized, cold soluble starch.

### 2. Physical and chemical characteristics

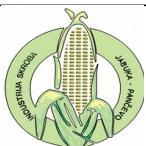
NAME / unit	VALUE	LIMITS	ANALYSIS METHOD
Moisture (%)	max 10	-	MI.32 – SRPS EN ISO 1666
pH – value (5% suspension)	-	5.5 - 8	MI.40 – Potenciometry
Viscosity , Brabender viscograph Pt 100, 350 cmg, 7% paste, 25 °C (BU)	cca 600	-	MI.39 – Internal method
Heavy metals content			
Lead (mg/kg)	-	max 0.4	ICP/MS
Arsenic (mg/kg)	-	max 0.5	ICP/MS
Cadmium (mg/kg)	-	max 0.05	ICP/MS
Mercury (mg/kg)	-	max 0.03	ICP/MS
Mycotoxin content			
Aflatoxin (B1+G1+B2+G2) (ppb)	-	max 4	HPLC
Aflatoxin B1 (ppb)	-	max 2	HPLC
Zearalenone (ppb)	-	max 75	HPLC
Ochratoxin A (ppb)	-	max 3	HPLC
Fumonisin (B1+B2) (ppb)	-	max 1000	HPLC
Microbiological critertia			
Molds (CFU/g)	-	max 100	ISO/FDIS 21527-2
Enterobacteriaceae (CFU/g)	-	max 10	SRPS ISO 21528-1
Number of aerobic colony (CFU/g)	-	max 10000	SRPS EN ISO 4833
Salmonella spp (/25g)	absent	-	SRPS EN ISO 6579

### 3. Legal Acts

The product is in accordance with these regulations:

- 3.1 Regulation of the quality of starch and starch products for food industry  
Official Gazette of the SRJ no. 33/95; Official Gazette of the SCG no. 56/03, 4/04
- 3.2. Regulation on food additives  
Official Gazette of the RS no. 63/13
- 3.3 Law on Food Safty  
Official Gazette of the RS no. 41/09
- 3.4 Regulation on general and special conditions of hygiene of food at any stage of production, processing and trade  
Official Gazette of the RS no. 72/10
- 3.5 Regulations on food hygiene requirements  
Official Gazette of the RS no. 73/10
- 3.6 Regulation on the maximum allowable residues of pesticides in food and animal feed and of food and animal feed which is determined by the maximum allowable amounts of residues of plant protection  
Official Gazette of the RS no.
- 3.7 Guide for the application of microbiological criteria for food (first published June 2011) chapter IV.
- 3.8 Regulations on the general declaration and marking of packed foodstuffs  
Official Gazette of the RS no. 85/13

	Made by:	Approved:
Name	Sanja Stefanov	Ljubica Nedeljković
Signature		



3.9 Law on Genetically Modified Organisms

Official Gazette of the RS 41/2009

3.10 Law on safety of Foods and objects for general use Official Gazette of the RS no. 92/2011

3.11 Regulation on the content limits of radionuclide in drinking water, food, animal feed, medicine, objects for general use, construction materials and other goods placed on the market, Official Gazette of the RS 86/11, 97/13

#### **4. Packaging**

Paper, multi layer valve bags (25kg;30kg).

#### **5. Marking / labeling**

In accordance with Regulations on the general declaration and marking of packed foodstuffs

Official Gazette of the RS no. 85/13

#### **6. Storage conditions / Transport**

**Packed:** Dry, well ventilated rooms, on the pallets covered with plastic foil, away from the chemicals and material with specific scent.

**Transport:** Closed vehicles.

#### **7. Validity**

Two years

#### **8. Application**

**Food industry** - Pangel is used in the production of instant food: instant pudding (prepared with cold water), instant soup (prepared with heated water on the temperature of 70 – 80 °C), baker's cream, whipped cream; in the sour sauces, ketchup...

**Pharmaceutical industry** - Pangel is used in the process of making tablets (better hardness and subsequent disintegration).

**Paper Industry** - Pangel is a basic component in the preparation of the adhesives that are used in the production of paper and card board.

**Binder in the casting industry and in the production of briquettes** - Pangel is used as the connection in the mixture for the core and the moulds; in the process of briquetting of coal dust, wood chips and similar organic debris. Total combustion.

**Oil drills** - Pangel in the sludge prevents dilatation, sticking mud to the wall and sedimentation of the gravel while extracting the drill.

**Flocculation** - Used in the production of aluminum and refinement of waste waters (sedimentation process).

**Flotation** - Pangel is used in the copper flotation (process without the sodium hydroxide). It is used as a binder in the processes of bracketing the coal dust, wooden saw dust and similar organic waste.

#### **9. Information for Special Needs Customer Group**

Allergenic constituent	Used as ingredient		Potential cross contamination	
	Yes/No	Nature of the constituent	Yes	No
Peanuts and products thereof	No			No
Crustaceans and products thereof	No			No
Fish and products thereof	No			No
Eggs and products thereof	No			No
Nuts and products thereof	No			No
Milk and products thereof (including lactose)	No			No
Soybeans and products thereof	No			No
Cereals containing gluten and products thereof (*)	No			No
Sulphur dioxide and products thereof	Yes	SO <sub>2</sub> <10ppm (not a classical allergen)		No
Celery and products thereof	No			No
Sesame seeds and products thereof	No			No
Mustard and products thereof	No			No
Mollusks and products thereof	No			No
Lupin and products thereof	No			No

(\*) Refer to wheat, rye, barley, rice, oats, kamut or their hybridised strains

(\*\*) In technological process of corn steeping, SO<sub>2</sub> is component of steeping water;

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