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ISO 9001 CERTIFIED

Promyde® BF38 L is a lubricated high viscosity Polyamide 6 for general extrusion applications and especially for cast and three bubble films.

Promyde BF38 L combines good gas barrier properties and chemical resistance, good mechanical and optical properties along with high abrasion resistance and good thermoformability.

| Product Specifications | Values | Standard method |
|---|-----------|-----------------|
| Relative viscosity (1% m/v in 96% m/m sulphuric acid, 25°C) | 3.8 ± 0,1 | ISO 1628 |
| Extractable % max. | ≤ 1 | ISO 6427 |
| Moisture content % max. | ≤ 0,1 | NAPPA-032 |

| General Properties | Unit | Value | Testing method |
|-----------------------------------|-------------------|-------|----------------|
| Melting point | °C | 220 | ISO 3146 |
| Density | g/cm ³ | 1.13 | ISO 1148 |
| Water absorption (23°C/sat.) | % | 9 | ISO 62 |
| Moisture absorption (23°C/50 %RH) | % | 3 | ISO 62 |
| Apparent density | g/cm ³ | 0.69 | NAPPA-059 |
| Chip size (length-diameter) | Mm | 2.5 | NAPPA-045 |

| Film Properties ¹ | Conditions | Unit | Value | Method |
|--|-----------------------------|--------------------------|-------|-------------|
| Stress at yield | MD | MPa | 34 | ISO 527-3 |
| Stress at break | MD | MPa | 96 | ISO 527-3 |
| Elongation at break | MD | % | 350 | ISO 527-3 |
| Trouser tear resistance | MD | N/mm | 25 | ISO 6383-1 |
| Haze | Chill roll temperature 90°C | % | ≤5 | ASTM D1003 |
| | Chill roll temperature 50°C | | ≤0.5 | |
| Dynamic coefficient of friction | Film/Steel | - | ≤0.25 | ISO 8295 |
| O ₂ transmission rate, 23°C | 0% RH | cc/m ² .d.atm | 25 | ASTM D3985 |
| | 50% RH | | 15 | |
| | 85% RH | | 40 | |
| Moisture vapor transmission rate, 23°C | 85% RH | g/m ² .d | 15 | ISO 15106-1 |

(1) Values were measured on 50µm flat film (chill-roll temperature 90°C): the properties like those of all PA films are greatly dependent on manufacturing conditions.

Packaging

Big bag / Octabin / Silo truck

CHARACTERISTICS

Promyde[®] BF38 L is a high viscosity Polyamide 6 for general extrusion applications and especially for cast and triple bubble film. Promyde BF38 L combines good gas barrier properties and chemical resistance, good mechanical and optical properties along with high abrasion resistance and good thermoformability.

APPLICATIONS

Promyde[®] BF38 L is used for the production of mono and coextruded films that are suitable for thermoforming. In a multilayer film Promyde[®] BF38 L assumes the function of a gas and aroma barrier, giving to the film outstanding mechanical properties and thermoformability. The main applications are vacuum packs and thermoformed packs for food such as meat, fish and cheese

FORMAT AND STORAGE

Promyde[®] BF38 L is supplied in moisture-proof packaging. Typical formats are Big Bags, Octabins, 25kg bags, and bulk silo trucks. All containers are perfectly sealed. The product should be stored in a dry place and opened just before processing.

PROCESSING GUIDELINES

Drying

Material is supplied pre dried and ready to process. Bags and containers should be stored in a dry place at room temperature. Storage time should not exceed twelve months. Material from open or damaged containers should be dried in a dry-air dryer at 75 to 80°C, the drying time required will depend on the moisture content. Drying temperatures of above 80°C should be avoided because of possible oxidation.

Extrusion Processing

PROMYDE[®] BF38 L may be processed on standard single-flighted, three-section screws. Better results can be obtained by using high-performance screws equipped with shearing and mixing sections. The screw length should be at least 24D, and preferably 28-33D to guarantee optimum plasticizing and conveying with the high through-put rates of film extrusion (D: screw diameter). A three-section screw should have a compression ratio (ratio of flight depth in the feed section to flight depth in the metering section) of 3:1 to 4:1.

It is recommended the length of screw sections as follows (L: overall length of screw):

Feed section: 0.25 to 0.30 x L

Compression section: 0.15 to 0.25 x L

Metering section: 0.4 to 0.55 x L

The following processing temperatures are recommended:

Feed section: 230-240°C

Compression section: 250-265°C

Metering section: 255-265°C

Die: 255-265°C

In cast film the temperature of the casting roll has an important influence on the film properties. If the film has to have a good dimensional stability and strength (such as for cover film) the temperature should be set to 80-120°C, however for good thermoforming and high transparency to 20-40°C

Conditioning

Films made of PROMYDE® BF38 L will achieve their final dimensions and properties after equilibrium moisture absorption.

Note: All recommendations are based on knowledge and experience. The values have been established on standard tests. The figures should be regarded as guide values and not as binding minimum values. As many factors may affect processing or applications, we recommend that you make tests to determine the suitability of a product for your particular use.