

# ABS-Rubber PLANT

Producing Plants and Products





## ▶ **ABS-RUBBER PLANT**

PadJam Polymer Development Company (a joint-stock company) has been established in 2014 with the aid of developing and operation of ABS/Rubber plant by Jam Petrochemical Company. The project is located in the Pars Energy Special Economic Zone in Assaluyeh, on an area of 15 hectares, with the production capacity of 200,000 metric tons of ABS per year and 60,000 metric tons of rubber per year, licensed by one of the most advanced technologies in the world Versalis -Eni, is under construction and has so far grown by more than 80% progress. The basic engineering of the project is done by Tecnimont Company. The PJPC is able to produce 9 grades of ABS and 3 types of rubber products in 7 different grades with the highest quality (for the first time and exclusively in Iran). About half of the rubber products in the Rubber Plant is used as a feed for ABS Plant, and the remaining rubber could supply the market demand. The feeds of this complex, are including Styrene, account for 152,000 tons per year through the pipeline from Pars Petrochemical Company, 1, 3 butadiene, account for 54,000 tons per year through pipeline from Jam Petrochemical Company and Acrylonitrile account for 47,000 tons per year which is imported. All the plant utility will be prepared from Damavand Petrochemical Complex.

### **ABS & Rubber Plants**

The Rubber production plant of PadJam Petrochemical Company is the first and only manufacturer of three products SBS, SB and LCBR in 7 popular grades based on market demand in Iran. The factory is designed and manufactured in accordance with the batch process solution polymerization to produce a wide range of grades, and is expected to be on operation by the beginning of the 2024. The ABS production plant of PadJam Petrochemical Complex is the first and only manufacturer of ABS products with Continuous Mass technology in 9 popular grades based on market demand in Iran.

# F332

## F332

### Main Features

- General purpose
- Injection molding

### Density: 1.04

### Main Applications

- Households
- Small Appliances and white goods Vacuum Cleaners
- Electrical components for civil and industrial applications

### Keys

- Packaged product should be protected from the atmospheric agents and stored out of direct sunlight
- NB: No Break
- /M: Matt - Digit following letter
- /M indicates increasing values of mattness

## APPLICATIONS



## Injection Moulding Grades

Properties	Test Condition	Test Methods	Units		
<b>General</b>					
Density		ISO 1183	g/cm <sup>3</sup>	1.04	
Water Absorption		ASTM D 570	%	0.3	
<b>Rheological</b>					
Melt Flow Rate (MFR)		ISO 1133	g/10min	14	
<b>Mechanical</b>					
Tensile Strength	50mm/min	ASTM D 638	MPa	42	
Strain at break	50mm/min	ASTM D 638	%	60	
Flexural Strength	2mm/min	ASTM D 790	MPa	60	
Flexural Modulus	2mm/min	ASTM D 790	MPa	2250	
Izod Impact Strength Notched	+23°C - thickness 3.2 mm	ISO 180/4A	J/m	190	
	0°C - thickness 3.2 mm	ISO 180/4A	J/m	125	
	-20°C - thickness 3.2 mm	ISO 180/4A	J/m	100	
	-40°C - thickness 3.2 mm	ISO 180/4A	J/m	90	
	+23°C - thickness 4 mm	ISO 180/1A	kJ/m <sup>2</sup>	14	
	-40°C - thickness 4 mm	ISO 180/1A	kJ/m <sup>2</sup>	8	
Charpy Impact Strength, Notched	+23°C	DIN 53453	kJ/m <sup>2</sup>	13	
	Unnotched	+23°C	DIN 53453	kJ/m <sup>2</sup>	NB
	Unnotched	-40°C	DIN 53453	kJ/m <sup>2</sup>	NB
Rockwell Hardness	scale R	ISO 2039/2	kJ/m <sup>2</sup>	R110	
<b>Thermal</b>					
Vicat Softening Temperature	10 N - 120°C/h	ISO 306/A120	°C	107	
	50 N - 120°C/h	ISO 306/B120	°C	102	
Deflection temp. under load (annealed)	1.8 MPa - 120°C/h	ASTM D 648	°C	101	
Coefficient of linear thermal expansion		ASTM D 696	10 <sup>-5</sup> /°C	9	
Thermal Conductivity		ASTM C 177	W/(Km)	0.17	
Moulding Shrinkage		ISO 294.4	%	0.4-0.6	
<b>Flammability</b>					
Flame behavior	thickness 1.5 mm	UL 94	class	HB	
Glow wire test	thickness 3 mm	IEC 60695-2-1	°C	650	
<b>Electrical</b>					
Surface resistivity	dry	IEC 60093	ohm	10+14	
Volume resistivity	dry	IEC 60093	ohm*cm	10+15	
Dielectric strength	dry	IEC 60243	kV/mm	30	
Dielectric constant (relative permittivity)	1000 Hz - dry	IEC 60250		3.1	
Dissipation factor	1000 Hz - dry	IEC 60250		15*10 <sup>-3</sup>	

PRODUCT DATA SHEET



# E332

### E332

#### Main Features

- General purpose
- Injection molding
- Medium flow
- Good impact strength

#### Density: 1.04

#### Main Application

- Automotive Interior (Trim parts)
- Tiles
- Forms

#### Keys

- Packaged product should be protected from the atmospheric agents and stored out of direct sunlight
- NB: No Break
- /M: Matt - Digit following letter
- /M indicates increasing values of mattness

## APPLICATIONS





## Injection Moulding Grades

Properties	Test Condition	Test Methods	Units	
<b>General</b>				
Density		ISO 1183	g/cm <sup>3</sup>	1.04
Water Absorption		ASTM D 570	%	0.3
<b>Rheological</b>				
Melt Flow Rate (MFR)		ISO 1133	g/10min	10
<b>Mechanical</b>				
Tensile Strength	50 mm/min	ASTM D 638	MPa	40
Strain at break	50 mm/min	ASTM D 638	%	75
Flexural Strength	2 mm/min	ASTM D 790	MPa	62
Flexural Modulus	2 mm/min	ASTM D 790	MPa	2200
Izod Impact Strength Notched	+23°C - thickness 3.2 mm	ISO 180/4A	J/m	190
	0°C - thickness 3.2 mm	ISO 180/4A	J/m	115
	- 20°C - thickness 3.2 mm	ISO 180/4A	J/m	90
	- 40°C - thickness 3.2 mm	ISO 180/4A	J/m	85
	+23°C - thickness 4 mm	ISO 180/1A	kJ/m <sup>2</sup>	15
Charpy Impact Strength, Notched	- 40°C - thickness 4 mm	ISO 180/1A	kJ/m <sup>2</sup>	8
	+23°C	DIN 53453	kJ/m <sup>2</sup>	12
	Unnotched	DIN 53453	kJ/m <sup>2</sup>	NB
Unnotched	- 40°C	DIN 53453	kJ/m <sup>2</sup>	NB
Rockwell Hardness	scale R	ISO 2039/2	kJ/m <sup>2</sup>	R111
<b>Thermal</b>				
Vicat Softening Temperature	10 N - 120°C/h	ISO 306/A120	°C	109
	50 N - 120°C/h	ISO 306/B120	°C	104
Deflection temp. under load (annealed)	1.8 MPa - 120°C/h	ASTM D 648	°C	103
Coefficient of linear thermal expansion		ASTM D 696	10 <sup>-5</sup> /°C	9
Thermal Conductivity		ASTM C 177	W/(Km)	0.17
Moulding Shrinkage		ISO 294.4	%	0.4-0.6
<b>Flammability</b>				
Flame behavior	thickness 1.5 mm	UL 94	class	HB
Glow wire test	thickness 3 mm	IEC 60695-2-1	°C	650
<b>Electrical</b>				
Surface resistivity	dry	IEC 60093	ohm	10+14
Volume resistivity	dry	IEC 60093	ohm*cm	10+15
Dielectric strength	dry	IEC 60243	kV/mm	30
Dielectric constant (relative permittivity)	1000 Hz - dry	IEC 60250		3.1
Dissipation factor	1000 Hz - dry	IEC 60250		15*10 <sup>-3</sup>

# L322

## PRODUCT DATA SHEET



### L322

#### Main Features

- General purpose
- Injection molding
- High Gloss
- Good impact resistance

#### Density: 1.04

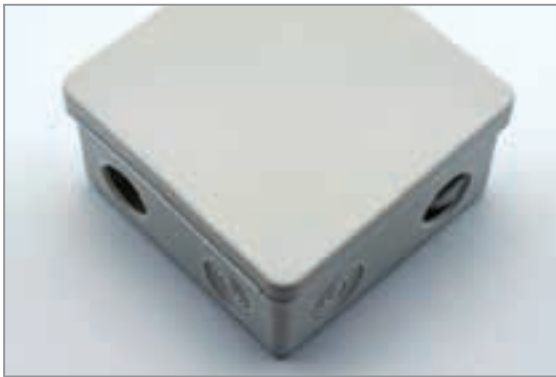
#### Main Application

- Domestic appliances
- Thermal resistant items (front panels, frames etc.)
- Electrical sector

#### Keys

- Packaged product should be protected from the atmospheric agents and stored out of direct sunlight
- NB: No Break
- /M: Matt - Digit following letter
- /M indicates increasing values of mattness

### APPLICATIONS



## Injection Moulding Grades

Properties	Test Condition	Test Methods	Units	
<b>General</b>				
Density		ISO 1183	g/cm <sup>3</sup>	1.04
Water Absorption		ASTM D 570	%	0.3
<b>Rheological</b>				
Melt Flow Rate (MFR)		ISO 1133	g/10min	23
<b>Mechanical</b>				
Tensile Strength	50 mm/min	ASTM D 638	MPa	45
Strain at break	50 mm/min	ASTM D 638	%	20
Flexural Strength	2 mm/min	ASTM D 790	MPa	69
Flexural Modulus	2 mm/min	ASTM D 790	MPa	2350
Izod Impact Strength Notched	+23°C - thickness 3.2 mm	ISO 180/4A	J/m	170
	0°C - thickness 3.2 mm	ISO 180/4A	J/m	100
	- 20°C - thickness 3.2 mm	ISO 180/4A	J/m	70
	- 40°C - thickness 3.2 mm	ISO 180/4A	J/m	50
	+23°C - thickness 4 mm	ISO 180/1A	kJ/m <sup>2</sup>	13
Charpy Impact Strength, Notched	- 40°C - thickness 4 mm	ISO 180/1A	kJ/m <sup>2</sup>	6
	+23°C	DIN 53453	kJ/m <sup>2</sup>	10
Unnotched	+23°C	DIN 53453	kJ/m <sup>2</sup>	NB
Unnotched	- 40°C	DIN 53453	kJ/m <sup>2</sup>	NB
Rockwell Hardness	scale R	ISO 2039/2	kJ/m <sup>2</sup>	R109
<b>Thermal</b>				
Vicat Softening Temperature	10 N - 120°C/h	ISO 306/A120	°C	99
	50 N - 120°C/h	ISO 306/B120	°C	96
Deflection temp. under load (annealed)	1.8 MPa - 120°C/h	ASTM D 648	°C	96
Coefficient of linear thermal expansion		ASTM D 696	10 <sup>-5</sup> /°C	9
Thermal Conductivity		ASTM C 177	W/(Km)	0.17
Moulding Shrinkage		ISO 294.4	%	0.4-0.6
<b>Flammability</b>				
Flame behavior	thickness 1.5 mm	UL 94	class	HB
Glow wire test	thickness 3 mm	IEC 60695-2-1	°C	650
<b>Electrical</b>				
Surface resistivity	dry	IEC 60093	ohm	10+14
Volume resistivity	dry	IEC 60093	ohm*cm	10+15
Dielectric strength	dry	IEC 60243	kV/mm	30
Dielectric constant (relative permittivity)	1000 Hz - dry	IEC 60250		3.1
Dissipation factor	1000 Hz - dry	IEC 60250		15*10 <sup>-3</sup>



PRODUCT DATA SHEET



**F232**

**F232**

**Main Features**

- General purpose,
- High flow injection moulding
- Grade, good impact
- Resistance, excellent gloss

**Density: 1.04**

**Main Application**

- Small and large
- Household appliances
- Vacuum cleaners, Toys
- Telephones and consumer electronics

**Keys**

- Packaged product should be protected from the atmospheric agents and stored out of direct sunlight
- NB: No Break
- /M: Matt - Digit following letter
- /M indicates increasing values of mattness

**APPLICATIONS**



## Injection Moulding Grades

Properties	Test Condition	Test Methods	Units	
<b>General</b>				
Density		ISO 1183	g/cm <sup>3</sup>	1.04
Water Absorption		ASTM D 570	%	0.3
<b>Rheological</b>				
Melt Flow Rate (MFR)		ISO 1133	g/10min	14
<b>Mechanical</b>				
Tensile Strength	50 mm/min	ASTM D 638	MPa	45
Strain at break	50 mm/min	ASTM D 638	%	20
Flexural Strength	2 mm/min	ASTM D 790	MPa	69
Flexural Modulus	2 mm/min	ASTM D 790	MPa	2350
Izod Impact Strength Notched	+23°C - thickness 3.2 mm	ISO 180/4A	J/m	170
	0°C - thickness 3.2 mm	ISO 180/4A	J/m	100
	- 20°C - thickness 3.2 mm	ISO 180/4A	J/m	70
	- 40°C - thickness 3.2 mm	ISO 180/4A	J/m	50
	+23°C - thickness 4 mm	ISO 180/1A	kJ/m <sup>2</sup>	13
Charpy Impact Strength, Notched	- 40°C - thickness 4 mm	ISO 180/1A	kJ/m <sup>2</sup>	6
	+23°C	DIN 53453	kJ/m <sup>2</sup>	10
Unnotched	+23°C	DIN 53453	kJ/m <sup>2</sup>	NB
Unnotched	- 40°C	DIN 53453	kJ/m <sup>2</sup>	NB
Rockwell Hardness	scale R	ISO 2039/2	kJ/m <sup>2</sup>	R109
<b>Thermal</b>				
Vicat Softening Temperature	10 N - 120°C/h	ISO 306/A120	°C	107
	50 N - 120°C/h	ISO 306/B120	°C	101
Deflection temp. under load (annealed)	1.8 MPa - 120°C/h	ASTM D 648	°C	102
Coefficient of linear thermal expansion		ASTM D 696	10 <sup>-5</sup> /°C	9
Thermal Conductivity		ASTM C 177	W/(Km)	0.17
Moulding Shrinkage		ISO 294.4	%	0.4-0.6
<b>Flammability</b>				
Flame behavior	thickness 1.5 mm	UL 94	class	HB
Glow wire test	thickness 3 mm	IEC 60695-2-1	°C	650
<b>Electrical</b>				
Surface resistivity	dry	IEC 60093	ohm	10+14
Volume resistivity	dry	IEC 60093	ohm*cm	10+15
Dielectric strength	dry	IEC 60243	kV/mm	30
Dielectric constant (relative permittivity)	1000 Hz - dry	IEC 60250		3.1
Dissipation factor	1000 Hz - dry	IEC 60250		15*10 <sup>-3</sup>

PRODUCT DATA SHEET



# B432/E

### B432/E

#### Main Features

- Sheets and profile Medium
- Impact strength
- Extrusion grade

### Density: 1.04

#### Main Application

- Plain or coextruded with high draw
- Ratios for refrigeration, sanitary
- Automotive, packaging,
- Housholding (profiles)

### Keys

- Packaged product should be protected from the atmospheric agents and stored out of direct sunlight
- NB: No Break
- /M: Matt - Digit following letter
- /M indicates increasing values of mattness

## APPLICATIONS





## Extrusion Moulding Grades

Properties	Test Condition	Test Methods	Units	
<b>General</b>				
Density		ISO 1183	g/cm <sup>3</sup>	1.04
Water Absorption		ASTM D 570	%	0.3
<b>Rheological</b>				
Melt Flow Rate (MFR)		ISO 1133	g/10min	4
<b>Mechanical</b>				
Tensile Strength	50 mm/min	ASTM D 638	MPa	45
Strain at break	50 mm/min	ASTM D 638	%	45
Flexural Strength	2 mm/min	ASTM D 790	MPa	68
Flexural Modulus	2 mm/min	ASTM D 790	MPa	2300
Izod Impact Strength Notched	+23°C - thickness 3.2 mm	ISO 180/4A	J/m	220
	0°C - thickness 3.2 mm	ISO 180/4A	J/m	165
	- 20°C - thickness 3.2 mm	ISO 180/4A	J/m	125
	- 40°C - thickness 3.2 mm	ISO 180/4A	J/m	100
	+23°C - thickness 4 mm	ISO 180/1A	kJ/m <sup>2</sup>	17
Charpy Impact Strength, Notched	- 40°C - thickness 4 mm	ISO 180/1A	kJ/m <sup>2</sup>	9
	+23°C	DIN 53453	kJ/m <sup>2</sup>	12
Unnotched	+23°C	DIN 53453	kJ/m <sup>2</sup>	NB
Unnotched	- 40°C	DIN 53453	kJ/m <sup>2</sup>	NB
Rockwell Hardness	scale R	ISO 2039/2	kJ/m <sup>2</sup>	R110
<b>Thermal</b>				
Vicat Softening Temperature	10 N - 120°C/h	ISO 306/A120	°C	109
	50 N - 120°C/h	ISO 306/B120	°C	104
Deflection temp. under load (annealed)	1.8 MPa - 120°C/h	ASTM D 648	°C	104
Coefficient of linear thermal expansion		ASTM D 696	10 <sup>-5</sup> /°C	9
Thermal Conductivity		ASTM C 177	W/(Km)	0.17
Moulding Shrinkage		ISO 294.4	%	0.4-0.6
<b>Flammability</b>				
Flame behavior	thickness 1.5 mm	UL 94	class	HB
Glow wire test	thickness 3 mm	IEC 60695-2-1	°C	650
<b>Electrical</b>				
Surface resistivity	dry	IEC 60093	ohm	10+14
Volume resistivity	dry	IEC 60093	ohm*cm	10+15
Dielectric strength	dry	IEC 60243	kV/mm	30
Dielectric constant (relative permittivity)	1000 Hz - dry	IEC 60250		3.1
Dissipation factor	1000 Hz - dry	IEC 60250		15*10 <sup>-3</sup>

PRODUCT DATA SHEET



# B532/E

### B432/E

#### Main Features

- Sheets and profile.
- Good impact strength
- High toughness

### Density: 1.04

#### Main Application

- Plain or coextruded with high draw
- Ratios for refrigeration, sanitary
- Automotive,
- Packaging, housholding (profiles)

### Keys

- Packaged product should be protected from the atmospheric agents and stored out of direct sunlight
- NB: No Break
- /M: Matt - Digit following letter
- /M indicates increasing values of mattness

## APPLICATIONS



## Extrusion Moulding Grades

Properties	Test Condition	Test Methods	Units	
<b>General</b>				
Density		ISO 1183	g/cm <sup>3</sup>	1.04
Water Absorption		ASTM D 570	%	0.3
<b>Rheological</b>				
Melt Flow Rate (MFR)		ISO 1133	g/10min	5
<b>Mechanical</b>				
Tensile Strength	50 mm/min	ASTM D 638	MPa	35
Strain at break	50 mm/min	ASTM D 638	%	45
Flexural Strength	2 mm/min	ASTM D 790	MPa	68
Flexural Modulus	2 mm/min	ASTM D 790	MPa	2300
Izod Impact Strength Notched	+23°C - thickness 3.2 mm	ISO 180/4A	J/m	280
	0°C - thickness 3.2 mm	ISO 180/4A	J/m	190
	- 20°C - thickness 3.2 mm	ISO 180/4A	J/m	150
	- 40°C - thickness 3.2 mm	ISO 180/4A	J/m	125
	+23°C - thickness 4 mm	ISO 180/1A	kJ/m <sup>2</sup>	20
Charpy Impact Strength, Notched	- 40°C - thickness 4 mm	ISO 180/1A	kJ/m <sup>2</sup>	10
	+23°C	DIN 53453	kJ/m <sup>2</sup>	16
Unnotched	+23°C	DIN 53453	kJ/m <sup>2</sup>	NB
Unnotched	- 40°C	DIN 53453	kJ/m <sup>2</sup>	NB
Rockwell Hardness	scale R	ISO 2039/2	kJ/m <sup>2</sup>	R110
<b>Thermal</b>				
Vicat Softening Temperature	10 N - 120°C/h	ISO 306/A120	°C	108
	50 N - 120°C/h	ISO 306/B120	°C	104
Deflection temp. under load (annealed)	1.8 MPa - 120°C/h	ASTM D 648	°C	104
Coefficient of linear thermal expansion		ASTM D 696	10 <sup>-5</sup> /°C	9
Thermal Conductivity		ASTM C 177	W/(Km)	0.17
Moulding Shrinkage		ISO 294.4	%	0.4-0.6
<b>Flammability</b>				
Flame behavior	thickness 1.5 mm	UL 94	class	HB
Glow wire test	thickness 3 mm	IEC 60695-2-1	°C	650
<b>Electrical</b>				
Surface resistivity	dry	IEC 60093	ohm	10+14
Volume resistivity	dry	IEC 60093	ohm*cm	10+15
Dielectric strength	dry	IEC 60243	kV/mm	30
Dielectric constant (relative permittivity)	1000 Hz - dry	IEC 60250		3.1
Dissipation factor	1000 Hz - dry	IEC 60250		15*10 <sup>-3</sup>



PRODUCT DATA SHEET



# B732/E

### B732/E

#### Main Features

- Very high
- Impact strength

### Density: 1.04

#### Main Application

- Extrusion of thick sheets for sanitary
- Automotive applications

### Keys

- Packaged product should be protected from the atmospheric agents and stored out of direct sunlight
- NB: No Break
- /M: Matt - Digit following letter
- /M indicates increasing values of mattness

## APPLICATIONS



## Extrusion Moulding Grades

Properties	Test Condition	Test Methods	Units	
<b>General</b>				
Density		ISO 1183	g/cm <sup>3</sup>	1.04
Water Absorption		ASTM D 570	%	0.3
<b>Rheological</b>				
Melt Flow Rate (MFR)		ISO 1133	g/10min	4.5
<b>Mechanical</b>				
Tensile Strength	50 mm/min	ASTM D 638	MPa	45
Strain at break	50 mm/min	ASTM D 638	%	45
Flexural Strength	2 mm/min	ASTM D 790	MPa	60
Flexural Modulus	2 mm/min	ASTM D 790	MPa	2200
Izod Impact Strength Notched	+23°C - thickness 3.2 mm	ISO 180/4A	J/m	350
	0°C - thickness 3.2 mm	ISO 180/4A	J/m	300
	- 20°C - thickness 3.2 mm	ISO 180/4A	J/m	200
	- 40°C - thickness 3.2 mm	ISO 180/4A	J/m	140
	+23°C - thickness 4 mm	ISO 180/1A	kJ/m <sup>2</sup>	28
Charpy Impact Strength, Notched	- 40°C - thickness 4 mm	ISO 180/1A	kJ/m <sup>2</sup>	12
	+23°C	DIN 53453	kJ/m <sup>2</sup>	20
Unnotched	+23°C	DIN 53453	kJ/m <sup>2</sup>	NB
Unnotched	- 40°C	DIN 53453	kJ/m <sup>2</sup>	NB
Rockwell Hardness	scale R	ISO 2039/2	kJ/m <sup>2</sup>	R103
<b>Thermal</b>				
Vicat Softening Temperature	10 N - 120°C/h	ISO 306/A120	°C	109
	50 N - 120°C/h	ISO 306/B120	°C	104
Deflection temp. under load (annealed)	1.8 MPa - 120°C/h	ASTM D 648	°C	100
Coefficient of linear thermal expansion		ASTM D 696	10 <sup>-5</sup> /°C	9
Thermal Conductivity		ASTM C 177	W/(Km)	0.17
Moulding Shrinkage		ISO 294.4	%	0.4-0.6
<b>Flammability</b>				
Flame behavior	thickness 1.5 mm	UL 94	class	HB
Glow wire test	thickness 3 mm	IEC 60695-2-1	°C	650
<b>Electrical</b>				
Surface resistivity	dry	IEC 60093	ohm	10+14
Volume resistivity	dry	IEC 60093	ohm*cm	10+15
Dielectric strength	dry	IEC 60243	kV/mm	30
Dielectric constant (relative permittivity)	1000 Hz - dry	IEC 60250		3.1
Dissipation factor	1000 Hz - dry	IEC 60250		15*10 <sup>-3</sup>

PRODUCT DATA SHEET



# D232/M3

## D232/M3

### Main Features

- Matt, extrusion

## Density: 1.04

### Main Application

- Extrusion/coextrusion of sheets
- with matt surfac
- Household profiles

## Keys

- Packaged product should be protected from the atmospheric agents and stored out of direct sunlight
- NB: No Break
- /M: Matt - Digit following letter
- /M indicates increasing values of mattness

## APPLICATIONS





## Extrusion Moulding Grades

Properties	Test Condition	Test Methods	Units	
<b>General</b>				
Density		ISO 1183	g/cm <sup>3</sup>	1.04
Water Absorption		ASTM D 570	%	0.3
<b>Rheological</b>				
Melt Flow Rate (MFR)		ISO 1133	g/10min	8
<b>Mechanical</b>				
Tensile Strength	50 mm/min	ASTM D 638	MPa	27
Strain at break	50 mm/min	ASTM D 638	%	100
Flexural Strength	2 mm/min	ASTM D 790	MPa	40
Flexural Modulus	2 mm/min	ASTM D 790	MPa	1550
Izod Impact Strength Notched	+23°C - thickness 3.2 mm	ISO 180/4A	J/m	110
	0°C - thickness 3.2 mm	ISO 180/4A	J/m	90
	- 20°C - thickness 3.2 mm	ISO 180/4A	J/m	80
	- 40°C - thickness 3.2 mm	ISO 180/4A	J/m	75
	+23°C - thickness 4 mm	ISO 180/1A	kJ/m <sup>2</sup>	9.5
Charpy Impact Strength, Notched	- 40°C - thickness 4 mm	ISO 180/1A	kJ/m <sup>2</sup>	79
	+23°C	DIN 53453	kJ/m <sup>2</sup>	NB
Unnotched	+23°C	DIN 53453	kJ/m <sup>2</sup>	NB
Unnotched	- 40°C	DIN 53453	kJ/m <sup>2</sup>	R97
Rockwell Hardness	scale R	ISO 2039/2	kJ/m <sup>2</sup>	R103
<b>Thermal</b>				
Vicat Softening Temperature	10 N - 120°C/h	ISO 306/A120	°C	106
	50 N - 120°C/h	ISO 306/B120	°C	101
Deflection temp. under load (annealed)	1.8 MPa - 120°C/h	ASTM D 648	°C	101
Coefficient of linear thermal expansion		ASTM D 696	10 <sup>-5</sup> /°C	9
Thermal Conductivity		ASTM C 177	W/(Km)	0.17
Moulding Shrinkage		ISO 294.4	%	0.4-0.6
<b>Flammability</b>				
Flame behavior	thickness 1.5 mm	UL 94	class	HB
Glow wire test	thickness 3 mm	IEC 60695-2-1	°C	650
<b>Electrical</b>				
Surface resistivity	dry	IEC 60093	ohm	10+14
Volume resistivity	dry	IEC 60093	ohm*cm	10+15
Dielectric strength	dry	IEC 60243	kV/mm	30
Dielectric constant (relative permittivity)	1000 Hz - dry	IEC 60250		3.1
Dissipation factor	1000 Hz - dry	IEC 60250		15*10 <sup>-3</sup>

# C442

## PRODUCT DATA SHEET



### C442

#### Main Features

- Heat resistance
- Good flow
- Good impact strength

### Density: 1.04

#### Main Application

- Automotive interior (extruded profiles, interior trim),
- Exterior (grilles, mirrors)

### Keys

- Packaged product should be protected from the atmospheric agents and stored out of direct sunlight
- NB: No Break
- /M: Matt - Digit following letter
- /M indicates increasing values of mattness

## APPLICATIONS



## Extrusion Moulding Grades

Properties	Test Condition	Test Methods	Units	
<b>General</b>				
Density		ISO 1183	g/cm <sup>3</sup>	1.04
Water Absorption		ASTM D 570	%	0.3
<b>Rheological</b>				
Melt Flow Rate (MFR)		ISO 1133	g/10min	6
<b>Mechanical</b>				
Tensile Strength	50 mm/min	ASTM D 638	MPa	43
Strain at break	50 mm/min	ASTM D 638	%	45
Flexural Strength	2 mm/min	ASTM D 790	MPa	65
Flexural Modulus	2 mm/min	ASTM D 790	MPa	2300
Izod Impact Strength Notched	+23°C - thickness 3.2 mm	ISO 180/4A	J/m	200
	0°C - thickness 3.2 mm	ISO 180/4A	J/m	165
	- 20°C - thickness 3.2 mm	ISO 180/4A	J/m	125
	- 40°C - thickness 3.2 mm	ISO 180/4A	J/m	100
	+23°C - thickness 4 mm	ISO 180/1A	kJ/m <sup>2</sup>	17
	- 40°C - thickness 4 mm	ISO 180/1A	kJ/m <sup>2</sup>	9
Charpy Impact Strength, Notched	+23°C	DIN 53453	kJ/m <sup>2</sup>	12
	Unnotched	+23°C	DIN 53453	kJ/m <sup>2</sup>
Unnotched	- 40°C	DIN 53453	kJ/m <sup>2</sup>	NB
Rockwell Hardness	scale R	ISO 2039/2	kJ/m <sup>2</sup>	R110
<b>Thermal</b>				
Vicat Softening Temperature	10 N - 120°C/h	ISO 306/A120	°C	114
	50 N - 120°C/h	ISO 306/B120	°C	108
Deflection temp. under load (annealed)	1.8 MPa - 120°C/h	ASTM D 648	°C	108
Coefficient of linear thermal expansion		ASTM D 696	10 <sup>-5</sup> /°C	9
Thermal Conductivity		ASTM C 177	W/(Km)	0.17
Moulding Shrinkage		ISO 294.4	%	0.4-0.6
<b>Flammability</b>				
Flame behavior	thickness 1.5 mm	UL 94	class	HB
Glow wire test	thickness 3 mm	IEC 60695-2-1	°C	650
<b>Electrical</b>				
Surface resistivity	dry	IEC 60093	ohm	10+14
Volume resistivity	dry	IEC 60093	ohm*cm	10+15
Dielectric strength	dry	IEC 60243	kV/mm	30
Dielectric constant (relative permittivity)	1000 Hz - dry	IEC 60250		3.1
Dissipation factor	1000 Hz - dry	IEC 60250		15*10 <sup>-3</sup>



# SOLT6302

## PRODUCT DATA SHEET



### SOL T6302

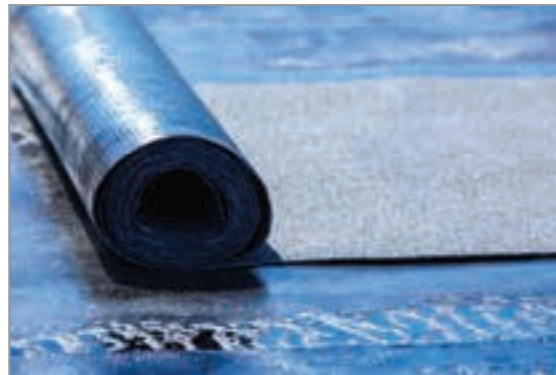
#### Main Features

- T 6302 rubber is a solution styrene butadiene pure block copolymer low molecular weight, linear (SB)2.

#### Main Applications

- Roofing applications
- Paving applications
- Bitumen modification

## APPLICATIONS



## Europrene

Properties	Test Methods	Analytical Manual	Units	
<b>General</b>				
Mooney Viscosity	ASTM D1646	MPP16	ML1+4 @ 100°C	N/A
Bound Styrene	ASTM D5775	MPP5-MPP6	wt %	29 – 33
Block styrene	ASTM D3314	MPP8	wt %	100
Solution viscosity*	ASTM D5774	MPP9	cPs	N/A
Gel content		MPP12	arbitrary	N/A
Molecular weight		MPP1	KDalton	95 - 125
Coupling efficiency		MPP1	%	84 min
Volatile matter content	ASTM D5668	MPP10	wt %	1 max
Residual solvent		MPP18	ppm	< 10
Colour	ASTM E313	MPP13	Yellow index	10 max
Solution color (Pt/Co)	ASTM D1209		arbitrary	N/A
Vinyl content		MPP5-MPP6	wt % on butadiene	10.0 – 14.0
Ash content	ASTM D5667	MPP15	wt %	N/A
Solvent extractables	ASTM D5774	MPP11	wt %	N/A

### Packaging



Bags on Pallet  
Big Bags & Wooden Crates

# SOLT161B

## PRODUCT DATA SHEET



### SOL T161B

#### Main Features

- T 161B rubber is styrene butadiene pure block copolymer, radial (SB)4

#### Main Applications

- Bitumen modification for waterproofing
- membranes used in roofing and bridge
- insulation, road paving & pipe coating

## APPLICATIONS



## Europrene

Properties	Test Methods	Analytical Manual	Units	
General				
Mooney Viscosity	ASTM D1646	MPP16	ML1+4 @ 100°C	N/A
Bound Styrene	ASTM D5775	MPP5-MPP6	wt %	29 – 33
Block styrene	ASTM D3314	MPP8	wt %	100
Solution viscosity*	ASTM D5774	MPP9	cPs	N/A
Gel content		MPP12	arbitrary	N/A
Molecular weight		MPP1	KDalton	220 - 260
Coupling efficiency		MPP1	%	84 min
Volatile matter content	ASTM D5668	MPP10	wt %	1 max
Residual solvent		MPP18	ppm	< 10
Colour	ASTM E313	MPP13	Yellow index	10 max
Solution color (Pt/Co)	ASTM D1209		arbitrary	N/A
Vinyl content		MPP5-MPP6	wt % on butadiene	10.0 – 14.0
Ash content	ASTM D5667	MPP15	wt %	N/A
Solvent extractables	ASTM D5774	MPP11	wt %	N/A

### — Packaging —



Bags on Pallet  
Big Bags & Wooden Crates



PRODUCT DATA SHEET

# SOLT6306



## SOL T6306

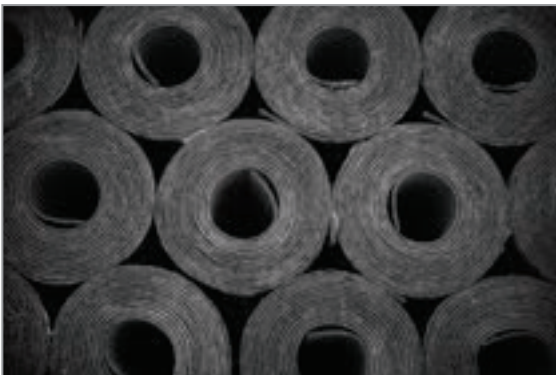
### Main Features

- T 6306 rubber is a solution styrene butadiene pure block copolymer, radial (SB)4

### Main Applications

- Bitumen modification in water proofing
- Compounds for shoe soles & technical goods

## APPLICATIONS



Euoprene

Properties	Test Methods	Analytical Manual	Units	
General				
Mooney Viscosity	ASTM D1646	MPP16	ML1+4 @ 100°C	N/A
Bound Styrene	ASTM D5775	MPP5-MPP6	wt %	34 - 38
Block styrene	ASTM D3314	MPP8	wt %	100
Solution viscosity*	ASTM D5774	MPP9	cPs	N/A
Gel content		MPP12	arbitrary	N/A
Molecular weight		MPP1	KDalton	245 - 275
Coupling efficiency		MPP1	%	85 min
Volatile matter content	ASTM D5668	MPP10	wt %	1 max
Residual solvent		MPP18	ppm	< 10
Colour	ASTM E313	MPP13	Yellow index	15 max
Solution color (Pt/Co)	ASTM D1209		arbitrary	N/A
Vinyl content		MPP5-MPP6	wt % on butadiene	10.0 – 14.0
Ash content	ASTM D5667	MPP15	wt %	N/A
Solvent extractables	ASTM D5774	MPP11	wt %	N/A

— Packaging —



Bags on Pallet  
Big Bags & Wooden Crates

# SOLB183

## PRODUCT DATA SHEET



### SOL B183

#### Main Features

- Europrene SOL B183 is a dry solution styrene butadiene block copolymer.

#### Main Applications

- Mainly used in plastic material (PS, ABS) modification

### APPLICATIONS



## Europrene

Properties	Test Methods	Analytical Manual	Units	
<b>General</b>				
Mooney Viscosity	ASTM D1646	MPP16	ML1+4 @ 100°C	60 – 80
Bound Styrene	ASTM D5775	MPP5-MPP6	wt %	9.0 – 11.0
Block styrene	ASTM D3314	MPP8	wt %	4 – 6
Solution viscosity*	ASTM D5774	MPP9	cPs	N/A
<b>Gel content</b>		MPP12	arbitrary	N/A
Molecular weight		MPP1	KDalton	N/A
Coupling efficiency		MPP1	%	N/A
Volatile matter content	ASTM D5668	MPP10	wt %	0.75 max
Residual solvent		MPP18	ppm	N/A
Colour	ASTM E313	MPP13	Yellow index	N/A
Solution color (Pt/Co)	ASTM D1209		arbitrary	N/A
Vinyl content		MPP5-MPP6	wt % on butadiene	9.0 – 11.0
Ash content	ASTM D5667	MPP15	wt %	0.2 max
Solvent extractables	ASTM D5774	MPP11	wt %	N/A

————— Packaging —————



Bales (25 kg)  
30-36 Bales in Wooden Crates



PRODUCT DATA SHEET



# InteneP30

## Intene P30

### Main Features

- The star like structure of P30 guarantees value in viscosity and, contemporary, a molecular weight

### Main Applications

- Mainly used in bulk and suspension ABS process
- Construction in tire building

## APPLICATIONS



Intene

Properties	Test Methods	Analytical Manual	Units	
General				
Mooney Viscosity	ASTM D1646	MPP16	ML1+4 @ 100°C	45 – 55
Bound Styrene	ASTM D5775	MPP5-MPP6	wt %	N/A
Block styrene	ASTM D3314	MPP8	wt %	N/A
Solution viscosity*	ASTM D5774	MPP9	cPs	35 - 50
Gel content		MPP12	arbitrary	4 max
Molecular weight		MPP1	KDalton	N/A
Coupling efficiency		MPP1	%	N/A
Volatile matter content	ASTM D5668	MPP10	wt %	0.75 max
Residual solvent		MPP18	ppm	N/A
Colour	ASTM E313	MPP13	Yellow index	N/A
Solution color (Pt/Co)	ASTM D1209		arbitrary	10 max
Vinyl content		MPP5-MPP6	wt % on butadiene	11 – 13
Ash content	ASTM D5667	MPP15	wt %	0.2 max
Solvent extractables	ASTM D5774	MPP11	wt %	N/A

————— Packaging —————



Bales (25 kg)  
30-36 Bales in Wooden Crates

# BR245

## PRODUCT DATA SHEET



### BR245

#### Main Features

- BR245 rubber is a solution polymerized low cis star
- Branched, low coupled, dry
- Polybutadiene produced

#### Main Applications

- Tire compounds and in some mechanical good compounds
- Blended with natural rubber in truck tire treads

### APPLICATIONS



## Europrene

Properties	Test Methods	Analytical Manual	Units	
General				
Mooney Viscosity	ASTM D1646	MPP16	ML1+4 @ 100°C	50 – 60
Bound Styrene	ASTM D5775	MPP5-MPP6	wt %	N/A
Block styrene	ASTM D3314	MPP8	wt %	N/A
Solution viscosity*	ASTM D5774	MPP9	cPs	N/A
Gel content		MPP12	arbitrary	N/A
Molecular weight		MPP1	KDalton	N/A
Coupling efficiency		MPP1	%	N/A
Volatile matter content	ASTM D5668	MPP10	wt %	0.6 max
Residual solvent		MPP18	ppm	N/A
Colour	ASTM E313	MPP13	Yellow index	N/A
Solution color (Pt/Co)	ASTM D1209		arbitrary	N/A
Vinyl content		MPP5-MPP6	wt % on butadiene	11 – 13
Ash content	ASTM D5667	MPP15	wt %	0.08
Solvent extractables	ASTM D5774	MPP11	wt %	N/A

————— Packaging —————



Bales (25 kg)  
30-36 Bales in Wooden Crates



PRODUCT DATA SHEET



# BR277

## BR277

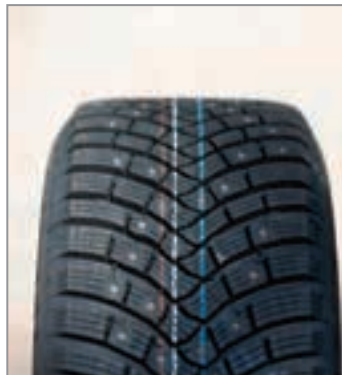
### Main Features

- BR277 rubber is a solution polymerized low cis star branched, low efficiency coupled, oil extended polybutadiene produced using alkyl lithium initiator in batch reactors.

### Main Applications

- BR 277 oil extended polybutadiene is used in tire compounds and in some mechanical good compounds.

## APPLICATIONS



Properties	Test Methods	Analytical Manual	Units	
General				
Mooney Viscosity	ASTM D1646	MPP16	ML1+4 @ 100°C	37 – 47
Bound Styrene	ASTM D5775	MPP5-MPP6	wt %	N/A
Block styrene	ASTM D3314	MPP8	wt %	N/A
Solution viscosity*	ASTM D5774	MPP9	cPs	N/A
Gel content		MPP12	arbitrary	N/A
Molecular weight		MPP1	KDalton	N/A
Coupling efficiency		MPP1	%	N/A
Volatile matter content	ASTM D5668	MPP10	wt %	0.3 max
Residual solvent		MPP18	ppm	N/A
Colour	ASTM E313	MPP13	Yellow index	N/A
Solution color (Pt/Co)	ASTM D1209		arbitrary	N/A
Vinyl content		MPP5-MPP6	wt % on butadiene	11 – 13
Ash content	ASTM D5667	MPP15	wt %	0.04
Solvent extractables	ASTM D5774	MPP11	wt %	26.3–29.3

————— Packaging —————



Bales (25 kg)  
30-36 Bales in Wooden Crates



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Petrochemical  
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**Corporation:**

Pars Special Economic Energy Zone,  
Jam Petrochemical Co, Assaluyeh  
Boushehr Province, I.R.Iran  
Tel: 0773-7323 221-5  
Fax: 0773-7323 311  
P.O.Code: 75118-11368

**Central Office**

Central Office: No 27, Nezami St, Tavanir  
Ave, Tehran, I.R.Iran, Jam Petrochemical Co.  
Tel: 021-88654545  
Fax 021-88771426  
P.O.Code: 1434853114

[www.jpcomplex.com](http://www.jpcomplex.com)

[info@jpcomplex.com](mailto:info@jpcomplex.com)