SOCAR Polymer Derivatives

Investor Presentation

SOCAR POLYMER

Introduction

- SOCAR jointly with the major industrial players in the country initiated SOCAR Polymer as a strategically important project for the petrochemical sector of Azerbaijan

- Key objective of the project is the application of the most up to date technology and maximizing of value added within the petrochemical chain

- SOCAR Polymer has intention to extent petrochemical chain and new projects by invitation of potential investors

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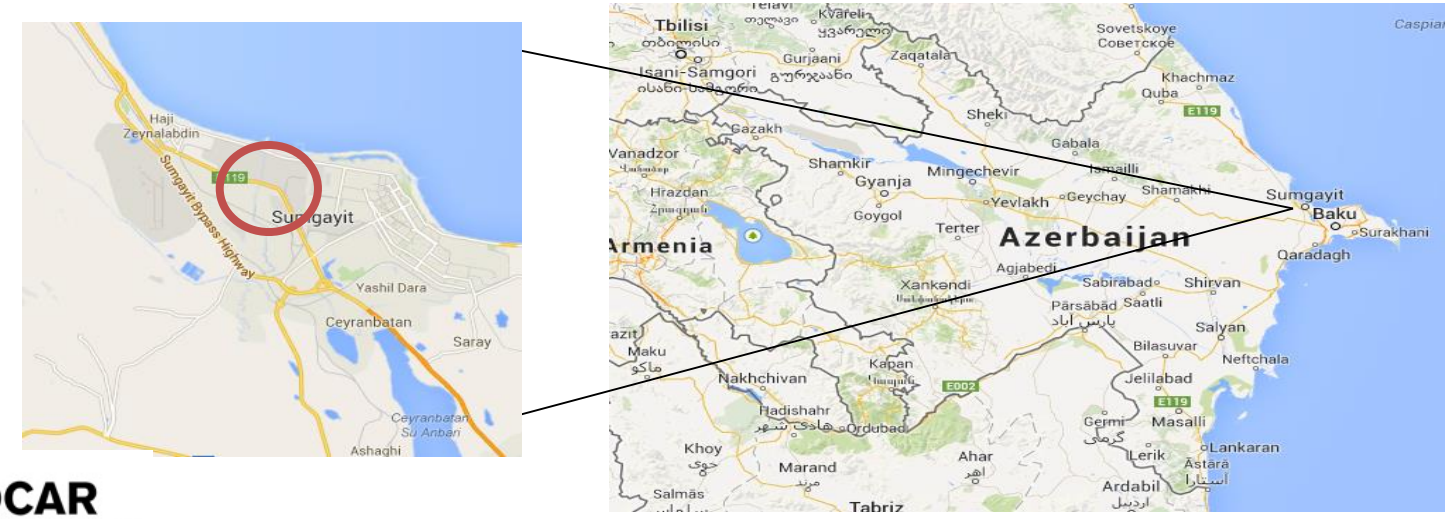
SOCAR Polymer: Project Snapshot

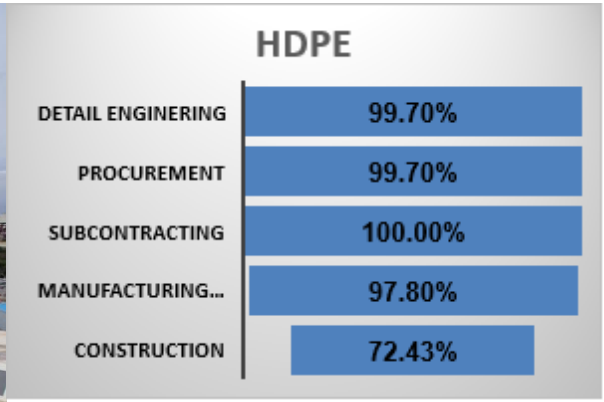
- **Location:** Located at Sumgait Chemical Industrial Park (SCIP) with major tax and duty exemptions granted for 7 years (profit, property, import VAT and land taxes)
- **Configuration:** 120 KTA HDPE (Ineos Technologies) and 184 KTA PP Plants with U&O (LyondellBasel Industries)
- **Start-up date:** I half, 2018 (PP) and II half, 2018 (HDPE)
- **Feedstock supply:** Ethylene, propylene and hydrogen feedstock to be supplied by SOCAR on a deliver or pay basis
- **Financing Structure:** 60/40 debt to equity ratio with limited recourse
- **Markets:** Local market will capture around 25% of sales, with the rest exported to Turkey, Europe and CIS

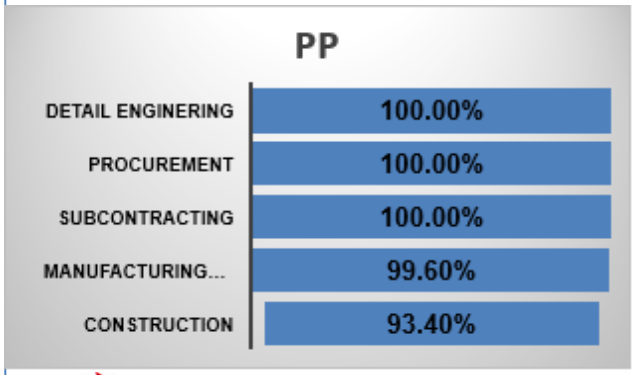


Leading experts have been involved in project execution

EPC	Maire Tecnimont Group
PMC	FLUOR
Legal Advisors	Vinson&Elkins LLP
Lenders' Legal Advisors	BAKER BOTTS; MORRISON PARTNERS LAW FIRM
Market consultant	IHS
Lenders' Technical Consultant	JACOBS
Environmental and social impact assessment	Golder Associates
Land Lessor	SCIP Sumgait Chemical Industrial Park
Lender	GAZPROMBANK

Project Execution Status





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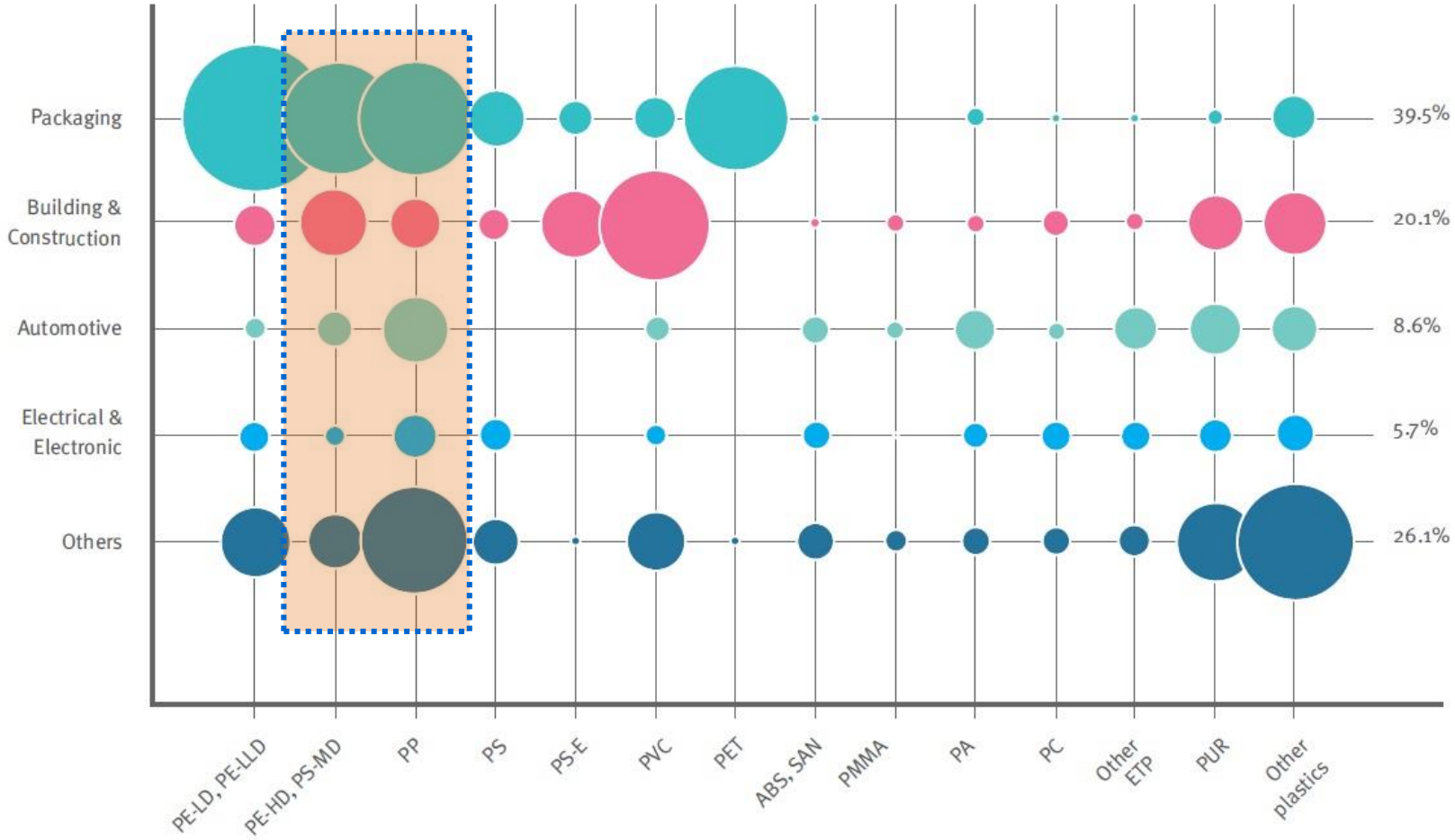
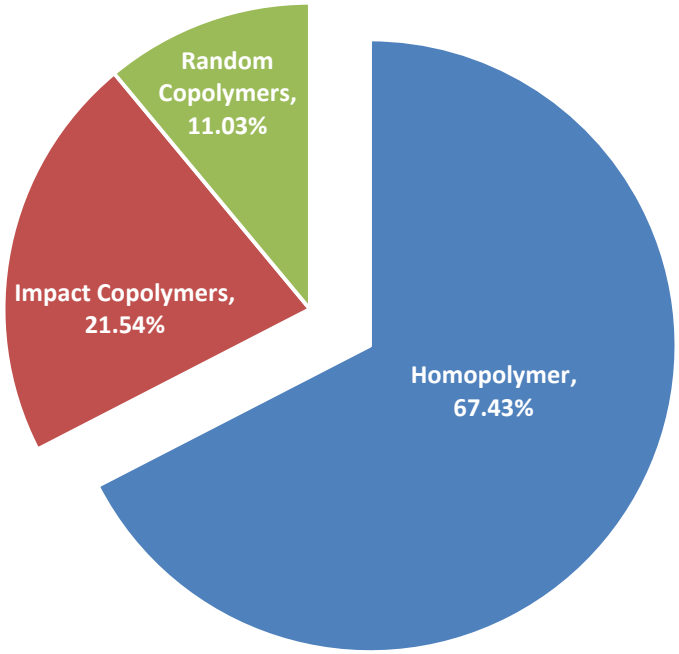
Plastics demand by segment and polymer type



Source: PlasticsEurope (PEMRG) / Consultic / myCeppi

SOCAR Polymer Products: PP – 180 000 ton/ year



Grade	Typical Applications
Homopolymer	Packaging film/fiber/raffia/yarn/strapping/extruded sheets
High Impact Copolymers	Automotive applications/garden furniture/toys/pails/containers
Random Copolymers	Injection molded household containers/Housewares

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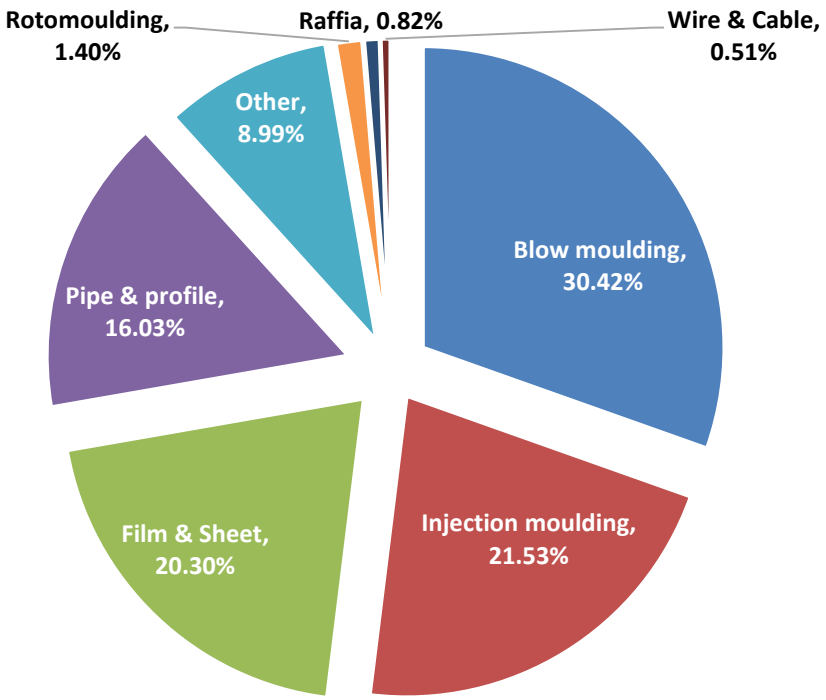
SOCAR Polymer Products: HDPE – 120 000 ton/ year



Grade	Typical Applications
Blow moulding	Various types of industrial containers/bottles/drums
Injection moulding	Bins/Hardhats/housewares/toys/crates/boxes
Film & Sheet	Thin films/industrial bags/grocery sacks
Pipe & profile	Water/gas transportation pipes

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Sumgait Chemical Industrial Park

Sumgait Chemical Industrial Park is the most appropriate industrial park in the region for investments. Big opportunities are provided to entrepreneurs working in this industrial zone.

According to Tax Code of Azerbaijan Republic significant incentives are applied for residents of industrial parks. Basing on the legislation, which entered into force on 1st of January 2013, residents of the Park are exempted of following taxes **for 7 years**:

Tax Incentives

- Property tax;
- Land tax;
- Corporate income tax;
- VAT and customs duties for imported equipment.

Infrastructure

- Energy supply;
- Water supply;
- Sewerage and Drainage Lines;
- Highway;
- Railway.

Currently repatriation of profits is guaranteed for investor after paying taxes.

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Polymer chain: Next steps

SOCAR Polymer targets to extend polymer production chain:

- To establish new plastics plants in SCIP territory for maximization of valued-added
- To replicate successful SOCAR Polymer Case in other projects
- To take social responsibility and support State employment policy
- To support export-oriented businesses and substitution of imports in Azerbaijan
- To support private investors and facilitate their relationship with State bodies/financial institutions.

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Win-win situation for potential investors

SOCAR Polymer aims to settle a win-win situation for all parties: targets to extend polymer production chain:

- SP guarantees major feedstock (PP and HDPE)
- SP supports new business ideas through equity contribution
- SCIP provide tax-privileged territory and infrastructure facilities
- Potential investors guarantee off-take of final products

Winners:

- SP extends on Petrochemical chain and adds value over its raw material
- SCIP utilize its facilities
- Partners receive fixed priced polymer derivatives.
- State policy on employment and development of non-oil sector is supported

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Thank You!

ATTACHEMENT: PP grades 1/5

HOMOPOLYMER				
Grade	MFI g/10 min	Processing Method	Features	Typical Applications
FILMS				
HP510M	8.5	• Cast water quenched blown film • Water quenched blown film • Extrusion (Small pipes) • Blow molding	• Excellent processability • Good optical properties • Excellent gloss	• Film for packaging food-stuffs such as pasta, snacks, biscuits, bakery products and confectionery • Film for packaging of flowers, books, stationery, blankets, shirts, knitwear and hosiery • Lamination with polyester, polyamide and aluminum for packaging of snacks, crisps, sweets, coffee, meat products and pre-cooked foods • Small pipes and drinking straws • Blow molded pigmented bottles • Coextruded sheet
HP525J	12	• BOPP Film • Thermoforming	• Medium Flow • Good processability • Good Transparency and Gloss	• High quality packaging film for food • Lamination to other films • Metalizing Film • Medical packaging • Thermoformed food containers
HP502H	1.8	• Extrusion (Sheet, film yarn, monofilament) • Thermoforming • Blow molding • Injection molding	• Excellent processability • High stiffness	• Sheet for thermoforming (drinking beakers, packaging for dairy products, nursery flower pots and trays for fruit, biscuits and chocolates) • Bags, industrial fabrics and mats • Baler twines, packaging twines and ropes • Brush and broom filling and technical applications • Profiles and small diameter pipes such as refills for ball pens • Strapping • Blow molded small containers
INJECTION MOLDING				

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ATTACHEMENT: PP grades 2/5

HP500P	16	• Compounding • Injection Molding	• Easy mold filling and short cycle times • Good dimensional stability • High stiffness • Food compatible	• Thin-walled articles • Containers • Boxes • Toys • Household articles • Closures and caps • Polymer base for compounding and masterbatches
HP500N	9	• Injection molding	• Easy mold filling and short cycle times • Good dimensional stability • High stiffness • Food compatible	• Cool boxes, vacuum flasks, flower pots • Food containers • Garden furniture • Toys • 3-part syringes • Closures, caps • Crates
HP500M	3	• Injection molding	• Good flow properties • Easy processing • High stiffness • Food compatible	• Housewares • Food containers • Garden furniture • Toys • Components for appliances • Parts for the automotive industry
RAFFIA/FIBRES				
HP550J	3.2	• Extrusion (film yarn, monofilament, sheet) • Thermoforming	• Good processability • Good mechanical properties • Food compatible	• Stiff sheet for high quality thermoformings such as vending cups, packaging for dairy products and trays for fruit, biscuits and chocolates • Film yarn, raffia, tapes, strapping • Carpet backings, bags, industrial fabrics, mats and artificial grass • Baler twines, packaging twines and ropes • Brush and broom filling and technical applications • Nets for various purposes
HP552R	26	• Fiber Extrusion (CF, BCF, staple)	• High melt flow • Excellent antigasfading properties	• Nonwoven fabrics for diapers, medical-sanitary applications • Wipes and tissues • Straps for backpacks, sport bags, bulk bags and for safety belts • Upholstery and sportswear

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ATTACHEMENT: PP grades 3/5

			• Good processability • Food compatible	• Bulk continuous filament for carpets • Nonwoven staple fiber • Hygiene nonwoven
HP565S	37	• Fiber (Spinning) Extrusion	• High Flow • Narrow Molecular Weight Distribution • Food compatible	• BCF Yarn • Fabrics • Filaments • Nonwovens • Sanitary Products • Spunbond Nonwovens • Textile Applications • Yarn
RANDOM COPOLYMER				
Grade	MFI g/10 min	Processing Method	Features	Typical Applications
INJECTION MOLDING				
RP340R	25	• Injection molding • Injection stretch blow molding	• High melt flow • Excellent transparency • Excellent gloss • Food compatible	• Household containers, housewares • Packaging for food, cosmetics and pharmaceutical products • Clear tubs and pots for ice cream, yoghurt and other desserts • Medical sector such as syringes, test tubes and vials • Lids, caps and closures • CD and DVD boxes • Injection stretch blow molded containers and bottles • Sports, leisure and toys
RP340N	11	• Injection molding • Extrusion (Sheet)	• High flow properties • Excellent transparency • High gloss	• Injection molded containers and thin-walled packaging • Clear containers • Household articles • Packaging for food, cosmetics and pharmaceutical products • Lids, caps and closures

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ATTACHEMENT: PP grades 4/5

			• Good antistatic properties	• Coextrusion with other polypropylene resins to produce multilayer sheet for thermoforming trays for fresh pasta and bakery products
FILMS				
RP310M	8.5	• Cast Film	• Good Processability • High Clarity • High Gloss • Random Copolymer • Weldable • Food Compatible	• Cast Film • Film • Food Packaging • Packaging • Stationary Supplies
RP215M	6	• Blown Film • Cast Film	• Antiblocking • Good Processability • High Clarity • High Gloss • Low Temperature Heat Sealability • Slip • Weldable	• Cast Film • Film • Food Packaging • Laminates • Stationary Supplies • Thin-walled Packaging
BLOW MOLDING				
RP270G	1.8	• Blow Molding • Blown Film • Extrusion Blow Molding • Injection Blow Molding • Injection Molding • Thermoforming	• Chemical Resistant • Ethylene Oxide Sterilizable • Good Flow • Good Impact Resistance • Good Processability • High Clarity • Food compatible	• Blow Molding Applications • Bottles • Film • Medical/Healthcare Applications • Pharmaceuticals

SOCAR POLYMER

ATTACHEMENT: PP grades 5/5

IMPACT COPOLYMER				
Grade	MFI g/10 min	Processing Method	Features	Typical Applications
INJECTION MOLDING				
LE301K	3.5	• Injection Molding	• Creep Resistant • General Purpose • Good Impact Resistance • Medium Flow • Medium Rigidity	• Appliances • Caps • Closures • Crates • Pails
EP300N	15	• Injection Molding	• Good Impact Resistance • Good Processability • Good Stiffness • Food Compatible	• Automotive Applications • Crates • Household Goods • Industrial Applications • Packaging
EP540P	15	• Injection Molding	• Good Impact Resistance • Good Stiffness • Nucleated • Food Compatible	• Caps • Closures • Containers • Household Goods • Luggage
EP548S	44	• Injection Molding	• Antistatic • High Flow • Nucleated	• Housewares • Opaque Containers • Sports • Leisure • Toys
EP380T	44	• Injection Molding	• Good Dimensional Stability	• Appliances • Automotive Applications • Containers

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ATTACHEMENT: HDPE grades 1/3

NATURAL GRADES				
Grade	MFI g/10 min	Processing Method	Features	Typical Applications
FILMS				
b-J53-10	10	• Film extrusion	• Excellent drawability • Good extrudability • High stiffness • High tensile strength • Good toughness	• General purpose thin films • T-shirt bags, grocery sacks and liners
J53-08 N2000	8	• Film extrusion	• Bimodal HDPE • Excellent drawability • Good extrudability and bubble stability • High tensile strength • Very high stiffness • Excellent toughness	• Production of very thin film produced at high line speed • Downgauging in all thin film applications
BLOW MOULDING				
B53-35H-011	0.35	• Blow moulding	• Easy processing • High top load resistance • Good environmental stress cracking resistance (ESCR) • Good impact strength • Meets FDA requirements of 21CFR.1520	• Household chemicals, pharmaceutical and cosmetic containers
ZBM58-30HS	0.3	• Blow moulding	• Bimodal HDPE • High rigidity • Outstanding environmental stress cracking resistance • High impact strength • Easy processing • Medium die swell	• Blow moulded containers up to 30 liters capacity for packaging chemicals, most household products oils, foodstuffs and pharmaceuticals • Sheet extrusion

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ATTACHEMENT: HDPE grades 2/3

b-HM5411EA	10	• Large Blow moulding	• Very high environmental stress crack resistance • Good rigidity • High melt strength • High impact strength	• High performance blow moulded containers typically of 1-60 liters capacity for packaging aggressive products • Robust industrial and technical mouldings
HM4560UA	6	• Large Blow moulding	• Excellent environmental stress crack resistance (ESCR) • High melt strength • High impact strength • Excellent chemical resistance • Excellent weathering resistance	• High performance blow moulded containers up to 5000 liters capacity for packaging aggressive products. Resistant to UV induced degradation.
INJECTION MOULDING				
T60-800	8.5	• Injection moulding	• High rigidity • Good impact strength • Meets FDA requirements of 21CFR 177.1520	• Crates • Recycle • Bins • Hardhats • General purpose injection moulding
T50-2000	20	• Injection moulding	• High processability • High gloss • Reasonably good impact strength and rigidity balance • Meets FDA requirements of 21CFR 177.1520	• Caps and closures • Toys • Housewares • General purpose
ZIM53-08	0.8	• Injection moulding	• Outstanding ESCR • Excellent impact strength • Good processability (MI 2 look alike viscosity)	• Technical moulding • Caps and closures
BLACK GRADES				

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ATTACHEMENT: HDPE grades 3/3

Grade	MFI g/10 min	Processing Method	Features	Typical Applications
PIPE				
INpipe100 SR	0.29	• Pipe extrusion	• Bimodal Black HDPE • Exceptional environmental stress crack resistance • High stiffness • High impact strength (Rapid Crack Propagation) • Good processability	• Classified PE100 in accordance with ISO 12162 based on ISO 9080 analysis. PE 100 compounds are usually used for water & gas transportation as described in ISO 4427 and 4437 respectively • Classified PE100RC in accordance with PAS1075 and is suitable for sandless laying and no dig trenchless techniques
b-TUB171	0.85	• Pipe extrusion	• Black MDPE • Good environmental stress crack resistance • Good flexibility (coilability) • Good processability	• Classified PE 80 in accordance with ISO 12162 based on ISO 9080 analysis. PE 80 compounds are usually used for water & gas transportation as described in ISO 4427 and 4437 respectively.
TUB121N3000	0.3	• Pipe extrusion	• Bimodal Black HDPE • Outstanding environmental stress crack resistance • High stiffness • High impact strength (Rapid Crack Propagation) • Good processability	• Classified PE 100 in accordance with ISO 12162 based on ISO 9080 analysis. PE 100 compounds are usually used for water & gas transportation as described in ISO 4427 and 4437 respectively.

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