DECEMBER 2017

New Year Edition

SOCAR Polymer Newsletter / Issue 12 / 2017

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SOCAR POLYMER

12,312,895
Man-hours LTI Free

496
Employees

96.7%
PP Total progress in December

86.8%
HDPE Total progress in December

SOCAR POLYMER

A message from the General Manager

Dear colleagues,

We have come a long way from 2013 and the tangible outcomes of our work started taking shape in 2017, which has been a year marked with many productive processes in promoting our ultimate goal of benefitting our country industrially and economically. We spent this year celebrating multiple achievements and milestones reached on our way, and I want to thank the entire team, and I don't mean SOCAR Polymer only, but also Fluor and Tecnimont and Ustay who altogether make this project happen by bringing into reality the ideals of cooperation and respect for one another.

We are getting increasingly engaged in an offspring of SOCAR Polymer – the SOCAR GPC project, the idea behind which is basically to replicate on a bigger project the model that we have created together. It is a bigger attempt which I truly believe will be successful and will prove that we have created a replicable model and a competent team of people that is able to reach out for challenging goals on greater scale. The GPC project's investment budget is almost 5 times the size of the Polymer project's. The GPC facility will comprise a gas processing plant, a large steam cracker – twice the size of the one at Azerikimya and a large polymerization unit. SOCAR GPC is a much more complex project, but in terms of the structure and the overall principle these projects of ours are more or less similar and it already feels how much easier it can be for the second time with the team that knows what to do, which methods to apply, which approaches to take up, etc.

And I believe together we can make this model work not only in Azerbaijan but in other parts of the world, too.

Happy year 2018 and may it be a year of big achievements for us all!

Farid Jafarov

December 2017

Site Photos

PROGRESS ON SITE DURING DECEMBER

HDPE plant

November	Progress over December	December
	HDPE: Blending Silos. Cable pulling started	
	HDPE: Organoleptic Structure and Effluent Treatment. SS erection and cable tray installation ongoing	

November	Progress over December	December
	HDPE: Extrusion Structure. RCC, SS and piping erection in progress	
	HDPE: Polymerization. Loop Reactor and Degasser installation completed. SS installation ongoing. Cable tray installation, piping and other works ongoing	
	HDPE: Electrical Substation. Earthing works activity in progress. Pre-commissioning of transformers started	
	HDPE: Polymerization Pipe Rack. Pipe support installation ongoing. Cable tray installation ongoing. Cable pulling in progress	

November	Progress over December	December
	HDPE: Pellet blower package space for logistic conveying. Pipe erection in progress	
	HDPE: Reactors Dump tank. Electrical works in progress	
	HDPE: Catalyst Activation. SS erection in progress	

HDPE: Bagging & Packing.
SS erection in progress

HDPE: Low Pressure Solvent Recovery.
SS erection in progress

PP plant and U&O area

November	Progress over December	December
	PP/U&O: Electrical substation. Complete energization activity in progress	
	PP/U&O: Common Control Room. Pre-commissioning activities in progress	
	PP/U&O: Chemical & Additives Storage Building. Most roof and façade sheeting works completed	
	PP/U&O: Laboratory. Most finishing works are completed. Roof sheeting and cladding works in progress	

November	Progress over December	December
	PP/U&O: Administration building. Finishing works ongoing. HVAC installation completed	
	PP/U&O: Workshop. Most roof sheeting works almost completed	
	PP/U&O: Bagging & Packing Building. SS installation and roof sheeting ongoing	
	PP/U&O: Fire water Retention Basins and Pump House. Pre-commissioning in progress	

November	Progress over December	December

PP/U&O: Cooling Tower.
Pre-commissioning activities in progress

PP/U&O: Flare Stack.
Pre-commissioning activities in progress

PP/U&O: Valve house.
Finishing works completed

November	Progress over December	December
	PP/U&O: Gate/ Guard House. Repair works in progress	
	PP/U&O: PP-Wet section / Polymerization. Equipment testing in progress. Installation of electrical instrumentation ongoing. Piping test in progress. Branch cable tray installation in progress	
	PP/U&O: PP Dry Section / Extrusion building. Suction system package installation in progress. Most cladding work completed. Lift erection in progress	
	PP/U&O: PP Dry section / Powder Silos. Pre-commissioning activities in progress	

November	Progress over December	December
	PP/U&O: Homogenization / Blender Silos. Pre-commissioning activities in progress	
	PP/U&O: Raw Water Storage Tank. Pre-commissioning activities in progress	
	PP/U&O: Isobutane Sphere. Sprinkler system installation in progress	
	PP/U&O: Interconnecting Pipe Racks. Pipe erection ongoing. Cable pulling ongoing	

November	Progress over December	December
	PP/U&O: Pipe Sleepers. Pipe erection and cable tray installation ongoing. Cable pulling ongoing	
	Nitrogen package. Pre-commissioning activities in progress	

November	Progress over December	December
	Warehouse. Pre-commissioning activities in progress. Fire system works in progress	
	Roads. Internal roads' construction ongoing. Laying of the first asphalt layer ongoing. Area lighting works in progress	

Project progress status

PP Plant Progress

Disciplines	Cumulative Progress
Detailed Engineering	99,9%
Procurement Orders	100%
Subcontracting	100%
Material Supply – Manufacturing and Delivery	99,7%
Construction	93,1%
Overall	96,7%

HDPE Plant Progress

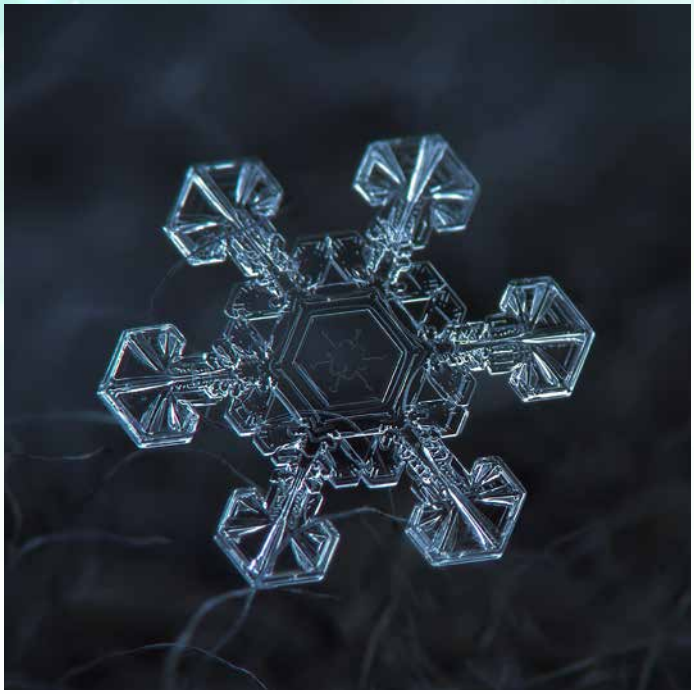
Disciplines	Cumulative Progress
Detailed Engineering	99,8%
Procurement Orders	99,8%
Subcontracting	100%
Material Supply – Manufacturing and Delivery	96,2%
Construction	71,2%
Overall	86,8%

Let it snow, let it snow, let it snow!

Polymer snowflakes that do not melt

Everyone loves a feast, a designate time for fun and joy, an excuse for total oblivion of the Groundhog Day routine. Our contemporaries are craving for colourful entertainment as much as the cave dwellers did tens of thousands of years ago – the same ones, who invented petroglyphs and worshipped elements that affected yields which meant survival.

A beautifully decorated tree is a holiday mark associated with glittering snow and winter pleasures, snowballs, sledging, skiing, skating and laughs, creating an irresistible temptation to be part of it all. Those who never saw snow just because their geography generates tangerines all year round, would gladly pay to see the artificial substitute in dedicated pavilions.



Snowflakes made of organic and non-organic polymers

Viscose, cellulose and a legion of synthetic fibres, whose composition know-how is obsessively guarded by the manufacturers, are molded to imitate the ideal molecular symmetry of natural snowflakes – the hexagons of an inexhaustible range of delicate shapes and intricate patterns morphed by the nature.

With water added, polymer powder grows 40 times its initial volume, to create snow in a versatility of configurations. It shimmers just as attractively, never melts at room temperature, is easily maneuvered around the house and just as easily vacuum-cleaned. Creating lasting winter effects, it gives surroundings a touch of magic - just what we all need once in a while.

Homemade joy created with polymers

Winter is the season to create some joy. In December, many use the little time left before the holidays to do some warm and cosy indoor crafts to produce decorations or gifts that can bring joy to friends, family and gatherings. The curious fact is that polymers step into our lives and come in handy even in festive seasons. Fast polymer clay, for instance, is largely used to make items both lovely to look at and useful, let alone unique. With instruction books available to suggest speedy techniques and creative project examples with templates that can be photocopied, the handcrafting process becomes both productive and fun even for adults who miss playing with playdough. True, it requires some skill and creativity, but some inspiration and observance of instructions can work miracles, too.

Polymer clay can be hardened by baking in an oven, so one can create anything from picture frames of various designs, ornaments, refrigerator magnets, jewellery, place settings and cards to a snowman that will not melt. Toys from polymer clay, such as fairy houses, dragons or other shapes, don't need to be painted as they can be made from different colours of clay. Pendants, charms or beads of perfect shape, size and colour on a stunning braid will make a gorgeous kumihimo necklace.

Polymer clay is basically a plastic clay made of plasticizers, fillers, pigments, oils, binders and some other ingredients. In raw state, polymer clay, the plasticizers are 'wet' so to speak, and can therefore leach out and react with whatever material they are in contact with by eating into the surface of the container. So, when storing unbaked polymer clay, don't just throw it into any old plastic container, because when you come back at a later date, the clay may have changed its properties so that it is no longer usable. It is worthy of note that containers made from PP or HDPE are polymer clay safe, as opposed to those from PVC, PS or EPS.

Polymer clay cane slices (see picture) can be added and baked onto many different surfaces, including stone, glass, metal and wood. There is an abundance of ideas. Just let imagination take the lead!

OPS Trainings

OPS (operations) trainings are offshore/onshore trainings conducted for SOCAR Polymer's operation/maintenance/ laboratory staff to expand their theoretical knowledge and practical skills regarding the technical aspects of operating/ maintaining various types of equipment/facilities installed at the PP plant. Trainings are arranged by Tecnimont, SOCAR Polymer or Fluor, and are delivered at vendors' facilities abroad or at appropriate institutions in Azerbaijan.

On-the-job training sessions at the SOCAR Polymer plant site

The EPC contract with the Tecnimont company includes trainings which the Kinetics Technology (KT) company has provided on daily basis since 28 August. The extensive Training Program scheduled for the period from August 2017 till mid-February of 2018 covers all aspects of plant operations and envisages both Classroom training (480 hours total) by various specialists and vendors, and On-job training (1050 hours total) to be led by experienced technicians until the end of the project to ensure complete grooming of SOCAR Polymer operators to efficiently handle the Plant. The trainings are listed under four major disciplines/categories: electrical, instrumentation, mechanical and operation. Thus, the SOCAR Polymer plant personnel gets a better understanding of the principles of equipment operation, and grows better informed of the basic maintenance and troubleshooting processes.

More detailed information on some of the training sessions conducted on site in December is provided below:

Training title	Duration	Dates	ParticipaParticipants' positionsnts' positions
First Aid	6 days	05-06 Dec	8 operators, 2 instrument technicians, 2 electrical technicians and 2 mechanical technicians
		07-08 Dec	8 bagging operators, 2 instrument technicians, 2 electrical technicians and 2 mechanical technicians
		19-20 Dec	2 lab analysts
Incident Investigation	2 days	12 Dec	4 shift supervisors and 5 bagging shift supervisors
		21 Dec	2 HSE advisors
Performing Authority	2 days	05 Dec (EN)	1 HSE advisor and 1 junior HSE advisor
		06 Dec (AZ)	1 HSE advisor and 1 junior HSE advisor
Authorized Gas Tester	2 days	11-12 Dec	1 HSE advisor and 1 junior HSE advisor
COSHH Assessor	2 days	13-14 Dec	1 HSE advisor, 1 HSE Compliance and Audit Engineer and 4 operators

SOCAR Polymer at the "Hasten to be merciful" charity action

AZƏRİKİMYA

Certificate Of Gratitude

Issued to: *Mr. Farid Jafarov, General Manager of SOCAR Polymer LLC*

for active participation in a joint charity action arranged by Azerikimya PU and the Sumgayit City Branch of the Red Crescent Society

The Chairman of the Sumgait City Branch of the Red Crescent Society of the Azerbaijan Republic: **Matanat Maharramova**

22 December 2017

On the threshold of the new year, SOCAR Polymer has taken part in the "Hasten to be merciful" action for charity jointly arranged by Azerikimya PU and the Sumgayit City Branch of the Red Crescent Society of the Azerbaijan Republic. The final event of the action was held in the events hall of the Azerikimya PU building on 22 December 2017. At the event, SOCAR Polymer LLC was represented by Rauf Davudov, the Engineering and Maintenance Manager. The event participants included representatives of Azerikimya PU subdivisions, Sumgayit municipality, a number of departments and enterprises, healthcare department, private clinics, public organizations, insurance companies, etc.

The speakers at the event emphasized that about 20 companies, departments, entities and organizations had joined this year's month-long charity action. The raised funds had been used to procure warm winter clothing for 200 children from low-income families in need. The purchased items were then presented to the children. To gladden the children deprived of parental care, to lift their spirits and encourage them for life, SOCAR Polymer had gladly joined the action and provided up to 200 gifts that met the children's current needs.

Speaking at the event, the Chairman of the Supervisory Board of Azerikimya PU and National Parliament member Mukhtar Babayev, as well as the Chairman of the Sumgait City Branch of the Red Crescent Society of the Azerbaijan Republic Matanat Maharramova expressed their gratitude to the heads of departments, enterprises and organizations, as well as to individual entrepreneurs for continuing their eager participation in this charity event held annually over the past 7 years, having become a tradition.

In the entertaining part of the event, Santa Claus congratulated the children on the coming New Year and handed out 200 gifts provided by the Araz Supermarket chain. At the event, the art and dance groups of the "Kimyachi" Cultural House gave engaging music and dance performances for the children.


TƏŞƏKKÜRNAMƏ


RİKİMYA


SUMQAYIT
SƏNAYE
ÖLKƏMİZ
GÜCLƏN

The "greenest" and non-toxic New Year Trees

Just a few short decades ago, displaying a New Year tree in one's living room yielded really only one option: a real pine or fir tree. That all changed when the Addis Brush Company created an artificial tree from brush bristles in the 1930s, acting as the prototype for modern artificial trees.

In the "real vs. artificial tree" debate, each option has its own pros-and-cons list.

Live trees

- biodegradable
- decay back to the soil
- have to kill one every year
- require extra care
- shed needles

Artificial trees

- non-recyclable
- linger for centuries in a land-fill site
- an be reused for several years
- do not require water
- mostly keep their needles intact

Artificial New Year trees are typically cut from compressed polyvinyl chloride (PVC) sheets, which may have an adverse effect on health due to the chemicals contained in PVC. The good news is that there are trees made from polyethylene (PE), a material considered safe even for the food packaging industry.

Modern technology allows manufacturers to injection-mold polyethylene (PE) plastic to create branch tips that are accurate copies of live tree needles, as opposed to PVC branches often made up of flat strips. Thus, PE trees are constructed differently than PVC artificial firtrees and you'll notice the difference right away because the needles are three-dimensional rather than flat. It creates a more realistic look and feel and creates a better solution for a non-toxic artificial New Year tree which will also be the greenest from the environmental point of view.

Of course, one can go one step further than the real versus artificial debate and consider a living, potted tree with live roots!

SOCAR POLYMER

YEAR IN REVIEW

2017

Installation of Loop Reactors

Blue Bag Day

SAP ERP Implementation

Training at PETKIM - OPS Fundamentals course

Overseas OPS Trainings

Cable and Switchgear FAT complete

Family Day

Family Day

A taste of Novruz

A taste of Novruz

Ascent to the Heydar Aliyev mountain peak

Blending Silos Installation

Gazprombank's business mission in Baku

Certificates presented to future plant operators

SOCAR Polymer at Baku marathon

SOCAR Polymer at Caspian Oil & Gas Exhibition

SOCAR Polymer at Caspian Oil & Gas Exhibition

SOCAR Polymer at the 2d Graduate Career Exhibition

Liquid Nitrogen Storage and Gasification Unit

Celebrating the World Environment Day

10.000.000 Man-hours LTI Free

First Motor Solo Run activity performed

Control room screens go live

SOCAR Polymer soccer team

8 HDPE blending silos erected over a month

Certificates presented to future plant operators

Employment offer for interns

HDPE plant: Loop Reactor installed

SOCAR Polymer at "Khamsa" Intellectual Game

Contribution to the Red Crescent charity event

www.socarpolymer.az

OPENING NEW FRONTIERS
IN THE PETROCHEMICAL
INDUSTRY OF AZERBAIJAN

SOCAR
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