

Data sheet

Granule Type: APPEX14

Silane cross-linkable PE compound for the production of flexible pipes

Description

APPEX14 is a pre-grafted polyethylene which can be processed in combination with its catalyst master batch (**APCAT14N**) in conventional extruders. Cross linking happen by exposing end products to moisture. It's used for domestic hot and cold water, under floor heating and central heating.

Color: Natural

Properties	Standard and Test Method	Unit	Typical Value
Density	ASTM D792	gr/cm ³	0.945±0.005
Melt Flow Index(190°C/5kg)	ASTM D1238	gr/10min	2.2±0.2
Tensile strength	ASTM D638	N/mm ²	min 25
Elongation at break	ASTM D638	%	min 500
Gel content	ASTM D2765	%	min 65
Moisture (water) (2hr at 80°C)	QCW01	%	Max 0.02

Cross linking

Depending on the end product thickness cross linking can be happen under following conditions:

- By immersion in 90°C hot water
- By exposure to low pressure water steam
- Ambient curing

Application

- Heating and Sanitary Pipes

Safety

APPEX14 is classified as no-dangerous material.

Packaging

The grafted polyethylene (APPEX14) and catalyst master batch (APCAT14N) are available in the form of pellets and supplied in aluminum multi-layer bags with a net content of 25 kg.

Processing Guidelines

- 1- The grafted polymer (APPEX14) should never be preheated.
- 2- It is recommended to dry the catalyst master batch and color master batch (if any) at 60°C in air oven for 2 hours.
- 3- The grafted polymer (APPEX14) and catalyst master batch (APCAT14N) should be manually well mixed at a ratio of 95:5 by weigh at room temperature, just before consumption. Mixing in large quantities should be avoided, since such leftover premix cannot be stored. Depend on production condition, catalyst can be use lower than 5%. For appropriate gelation, Pipe needs longer period of time when you decrease the quantity of catalyst master batch (APCAT14N).
- 4- The actual extrusion conditions will depend on the type of equipment used. The following conditions may be used as a guide when starting up the extruder.

	zone 1	zone 2	zone 3	zone 4	head	die
max (°C)	170	180	190	190	210	220
min (°C)	160	170	180	180	200	210

Extruder L/D= 20-26

- 4- It is important that extruder should not be kept idle for more than 15minutes when filled with grafted polyethylene (APPEX14) and catalyst (APCAT14N) premix.

Storage

- Packaging should be keep closed during storage
- Ambient temperature should not exceed more than 35°C
- Avoid direct exposure to sunlight and humid weathering
- APPEX14 can be stored for 6 months after production
- Compound should be used maximum 3-4 hours after opening packaging

Technical Service

Abhar Polymer Compounds Technical Service is available to help the customer to choose the best product for his requirements.

Our Technical Service is at your disposal for further information and advice about the start-up and also for any possible necessity during the use of the product.

Disclaimer

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