

### KELTAN® 9650Q

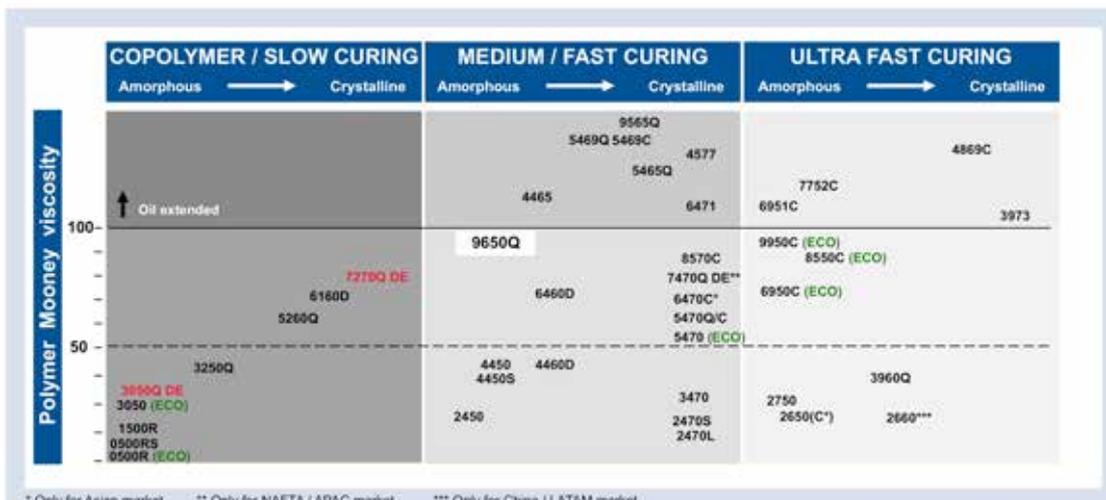
Keltan® 9650Q is an amorphous ethylene-propylene rubber with a high ENB (ethylidene norbornene) content and a high Mooney viscosity. The amorphous structure of the polymer results in good low temperature properties. The high polymer viscosity in combi-

nation with the narrow molecular weight distribution, provides a robust EPDM. This polymer can be compounded for cost effective applications and short mix cycles, while maintaining good physical properties.

Property*	Typical Values	Units	Test Method
Mooney viscosity, ML (1+8) 150°C	60	MU	ASTM D1646
Ethylene content	54.0	wt. %	ASTM D3900A
ENB content	6.5	wt. %	ASTM D6047

#### Product Portfolio

The product overview below shows the position of Keltan® 9650Q in relation to the other products in the Keltan® EPDM product portfolio.



## Production

Keltan® 9650Q is produced in Orange, Texas, USA, using suspension polymerization and Ziegler Natta catalysis.

## Quality Improvement



ARLANXEO is continuously improving the quality of its plants and has recently invested significantly at the site in Orange, TX to upgrade and improve the plant, and the quality of its products. ARLANXEO intends to implement process improvements for Keltan® 9650Q in the Orange plant, and to enhance the product quality of the entire Orange product portfolio. As an example, we are currently implementing an improved catalyst activation technology at Orange, bringing its manufacturing operation in line with the technology already used at all of our other Keltan® EPDM production sites. The core Ziegler Natta catalyst system is not changed and remains intact. Most importantly, the product has the identical processing and compounding properties that it has always had.

In the case of Keltan® 9650Q, the improvement in catalyst activation means:

- The catalyst residues are lower than in the past, resulting in better baseline color and color stability.
- The smell of the product has changed slightly. The new smell is very similar to that of Keltan® products from other production sites, which means a milder and sweeter odor than current Orange products.
- No change at all in performance characteristics or specifications.

## Unique Polymer Characteristics

Keltan® 9650Q provides significant benefits when compounding and in end-use applications. These include:

- Excellent capacity for high filler and oil loading levels, thus helping to optimize compound costs.
- Excellent low temperature properties because of the completely amorphous character.
- Rapid initial incorporation of carbon black which results in shorter mixing times and improved dispersion, due to the narrow molecular weight distribution.
- High curing rate performance during the continuous extrusion and vulcanization process, due to the high ENB content.
- Excellent physical properties due to the high molecular weight and narrow molecular weight distribution. This combination ensures a high level of tensile and set properties.

**Application**

- Keltan® EPDM products are globally the choice of designers and are being used in numerous building and construction systems. Keltan® 9650Q is being used in applications such as window gaskets and solid seal systems.
- Keltan® 9650Q is able to meet the processing and physical properties of (molded) rubber goods in industrial applications like waste water seals and tunnel seals.
- Keltan® 9650Q is being used in automotive applications such as solid seal systems and molded goods.

In all of these applications, Keltan® 9650Q provides optimal flexibility and sealing performance as well as protection against moisture and weather effects.

**Typical Compound Formulation**

Building Profile, Black Solid, Medium Hardness (50-75 Shore A), Sulphur Cured, Extrusion, NA free.

Ingredient	PHR			Mechanical Properties*	Unit	Typical Value
Keltan® 9650Q	100	CLD-80	1.3	Hardness	[ShA]	69
ZnO-active	5	ZDBP	0.7	Tensile strength	[MPa]	9.1
Stearic acid	1	CUT-50	1	Elongation at break	[%]	318
Carbon black N-550	150	CBS	1.5	Tear Strength (Crescent)	[N/mm]	23
Paraffinic oil	100	ZBEC	1.5	Compression set (22h/70°C)	[%]	12
Whiting	100	S	0.5	Compression set (22h/100°C)	[%]	29
PEG	2	<b>Total</b>	<b>473.5</b>			
CAO-80	8					
ZMB2	1					

\*These items are provided as general information only. They are approximate values and are not considered part of the product specifications.

More Keltan® 9650Q based pilot formulations will be published at our customer information platform, Keltan® Connect (<http://connect.keltan.com>).

**Product Information**

- **Product Storage:** Information regarding the storage of Keltan® EP(D)M can be found in the ‘Keltan® EP(D)M Handling & Storage Guidelines’ at Keltan® Connect.
- **Product Safety:** Detailed product safety data can be found in the ‘Keltan® EP(D)M Material Safety Data Sheet’ at Keltan® Connect.
- **FDA and BfR Declarations:** can be requested at Keltan® Connect.
- **Keltan® Connect:** The electronic customer information platform for all Keltan® product information. Please contact your local representative for access to Keltan® Connect. (<http://connect.keltan.com>).

Keltan Elastomers - The Only True Global EPDM Supplier

Details



● BL Keltan: Production site      ● Regional sales offices and technical services

- EPDM plants in all strategic regions
- Regional Service:
  - 25 sales offices
  - Technical services
  - Application development
- Expansion in China
  - Largest world scale plant
  - Wholly owned by ARLANXEO

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We are happy to support your business. Please contact us for additional information: visit [www.Keltan.com](http://www.Keltan.com)



The manner in which you use and the purpose to which you put and utilize our products, technical assistance and information (whether verbal, written or by way of production evaluations), including any suggested formulations and recommendations are beyond our control. Therefore, it is imperative that you test our products, technical assistance and information to determine to your own satisfaction whether they are suitable for your intended uses and applications. This application-specific analysis must at least include testing to determine suitability from a technical as well as health, safety, and environmental standpoint. Such testing has not necessarily been done by us. Unless we otherwise agree in writing, all products are sold strictly pursuant to the terms of our standard conditions of sale. All information and technical assistance is given without warranty or guarantee and is subject to change without notice. It is expressly understood and agreed that you assume and hereby expressly release us from all liability, in tort, contract or otherwise, incurred in connection with the use of our products, technical assistance, and information. Any statement or recommendation not contained herein is unauthorized and shall not bind us. Nothing herein shall be construed as a recommendation to use any product in conflict with patents covering any material or its use. No license is implied or in fact granted under the claims of any patent.

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