

KELTAN® 3960Q

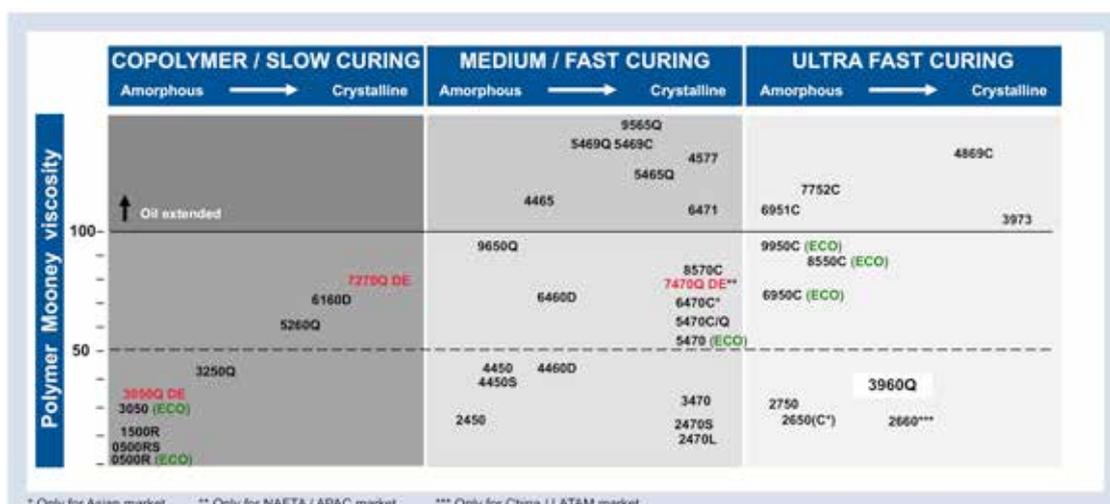
Keltan® 3960Q is a low crystalline ethylene-propylene rubber with a very high ENB (ethylidene norbornene) content and a low Mooney viscosity. The very high

ENB content enables very fast cure times and excellent physical properties.

Property*	Typical Values	Units	Test Method
Mooney viscosity, ML (1+8) 100°C	54	MU	ASTM D1646
Ethylene content	56.0	wt. %	ASTM D3900A
ENB content	11.0	wt. %	ASTM D6047

Product Portfolio

The product overview below shows the position of Keltan® 3960Q in relation to the other products in the Keltan® EPDM product portfolio.



Production

Keltan® 3960Q 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® 3960Q 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.

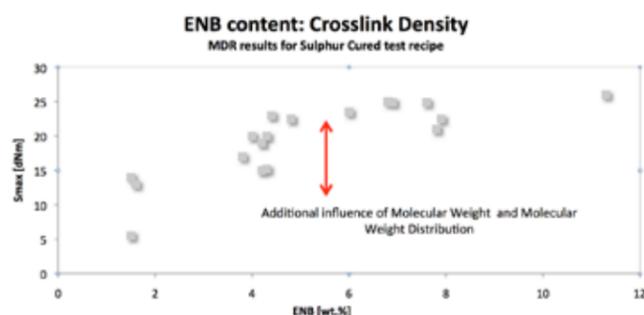
In the case of Keltan® 3960Q, the improvement in catalyst activation means:

- 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® 3960Q provides significant benefits when compounding and in end-use applications. These include:

- Excellent capacity for high filler and oil loading levels, because of low mooney viscosity, thus helping to optimize compound cost.
- Extremely fast network formation enabled by very high ENB content for very fast curing and high extrusion output.
- Good physical properties because of narrow molecular weight distribution and efficient cross linking.
- Excellent processing properties due to low Mooney viscosity.



Application

- Keltan® EPDM products are globally the choice of automotive component designers and are being used in numerous automotive applications. Keltan® 3960Q is being used in automotive applications such as belts and solid seal systems.
- Keltan® 3960Q is able to meet the processing and physical properties of (molded) rubber goods in industrial and automotive applications.
- Keltan® 3960Q is used in solid tires and tire sidewalls for optimal ozone and weather resistance.
- Keltan® 3960Q is also being used in building and construction applications such as window gaskets and solid seal systems.

Keltan® 3960Q based compounds gain a high rate of cure and all applications get a good flexibility and excellent protection against moisture and weather effects.

Typical Compound Formulation

Evaluation compound, Black Solid Seal, Medium Hardness (50-75 Shore A), Sulphur Cured, NA safe.

Ingredient	PHR			Mechanical Properties*	Unit	Typical Value
Keltan® 3960Q	100	MBTS	0.5	Hardness	[ShA]	73
ZnO	5	MBT	1	Tensile strength	[MPa]	11.9
Stearic acid	1	ZDT	1.35	Modulus 100%	[MPa]	5.7
PEG	2	ZBEC	1	Modulus 300%	[MPa]	-
Carbon black N-550	130	S	1.4	Elongation at break	[%]	224
Whiting	65	Total	389.25	Compression set (24h/23°C)	[%]	6
Paraffinic oil	75					
Calcium oxide	6					

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

More Keltan® 3960Q 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

Contact

■ EMEA

E-mail: john.beelen@arlanxeo.com
Phone: +31 46 7020 871

■ CHINA

E-mail: baojia.cheng@arlanxeo.com
Phone: +86 21 6109 8216

■ APAC

E-mail: wengfook.chee@arlanxeo.com
Phone: +65 6725 5778

■ NAFTA

E-mail: pete.spanos@arlanxeo.com
Phone: +1 440 678 8768

■ LATAM

E-mail : leandro.alves@arlanxeo.com
Phone : + 55 11 3741 7928

■ Internet

www.keltan.com

We are happy to support your business. Please contact us for additional information: visit www.Keltan.com



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