



## X\_BUTYL® CHLOROBUTYL RUBBER FOR CURING ENVELOPES

Curing envelopes are a key component in the retreading of tires. During this process the tire composed of uncured cushion gum and a pre-cured tread is encased in a flexible rubber envelope which conforms to the shape of the tire. A ring is then applied to the inside of the tire creating a tight seal. The tire is then placed in a curing chamber which applies heat and pressure to cure the unvulcanized cushion gum bonding the pre-cured tread to the tire casing. As these envelopes undergo numerous cycles, the choice of polymer is very important.

While the use of regular X\_Butyl® provides long lasting envelopes, chlorinated X\_Butyl® may also be used in order to improve the production throughput of the curing envelopes. While these envelopes may have shorter lifetimes as those based on regular butyl rubber, compared to other polymers they possess:

- very low permeability to gases and steam
- resistance to heat
- good hot tear and crack growth resistance
- low compression and permanent set

### PRODUCT PROPERTIES

Grade	X_Butyl® CB 1240
Mooney Viscosity (ML 1+ 8, 125°C, MU)	38
Halogen (wt%)	1.25
Volatiles (wt%)	<0.5

### TYPICAL COMPOUND FORMULATION

Ingredient	phr
X_Butyl® CB 1240	100
Carbon Black	50
Stearic Acid	1
Process Aid	4
Oil	15
Zinc Oxide	3
Amylphenol disulfide	4

Mechanical Properties	Unit	Typical Value*
Hardness	(ShA)	48
Tensile Strength	(MPa)	13.0
Modulus 100%	(MPa)	1.2
Modulus 200%	(MPa)	2.3
Elongation at break	(%)	755
Tear Strength	(kN/m)	36
Crack Growth Resistance to 600%	(kcycles)	>250
Permanent Set	(%)	4

\*These items are provided as general information only. They are approximate values and are not considered part of the product specifications. Please contact your regional representative for additional information.

# TIRE AND SPECIALTY RUBBERS GLOBAL FOOTPRINT



## WE ARE HAPPY TO SUPPORT YOUR BUSINESS

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Note: The information contained in this publication is current as of May 2017.

Please contact ARLANXEO USA LLC to determine if this publication has been revised.