



X_BUTYL® REGULAR BUTYL RUBBER FOR CURING BLADDERS

Curing bladders are a key component in the building of radial tires. An unvulcanized tire is placed in a mold with the curing bladder located on the inside of the mold cavity. Pressurized steam is used to inflate the bladder stimulating the curing process and giving the tire its final shape. The demands of this application require careful selection of the polymer type to ensure the curing bladder is long lasting as it undergoes numerous cure cycles.

When curing bladder compounds based on regular X_Butyl® are correctly formulated and processed, they

possess:

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

In addition, a blend of a butyl polymer with high unsaturation (X_Butyl® RB 301) with a butyl polymer lower unsaturation (X_Butyl® RB 100) has been shown to provide improved aging properties.

PRODUCT PROPERTIES

Grade	X_Butyl® RB 301	X_Butyl® RB 100	X_Butyl® RB 402
Mooney Viscosity (ML(1+ 8) @ 125 °C, MU)	51	33	33
Unsaturation (mol%)	1.85	0.9	2.25
Volatile Matter (wt%)	<0.3	<0.3	<0.3

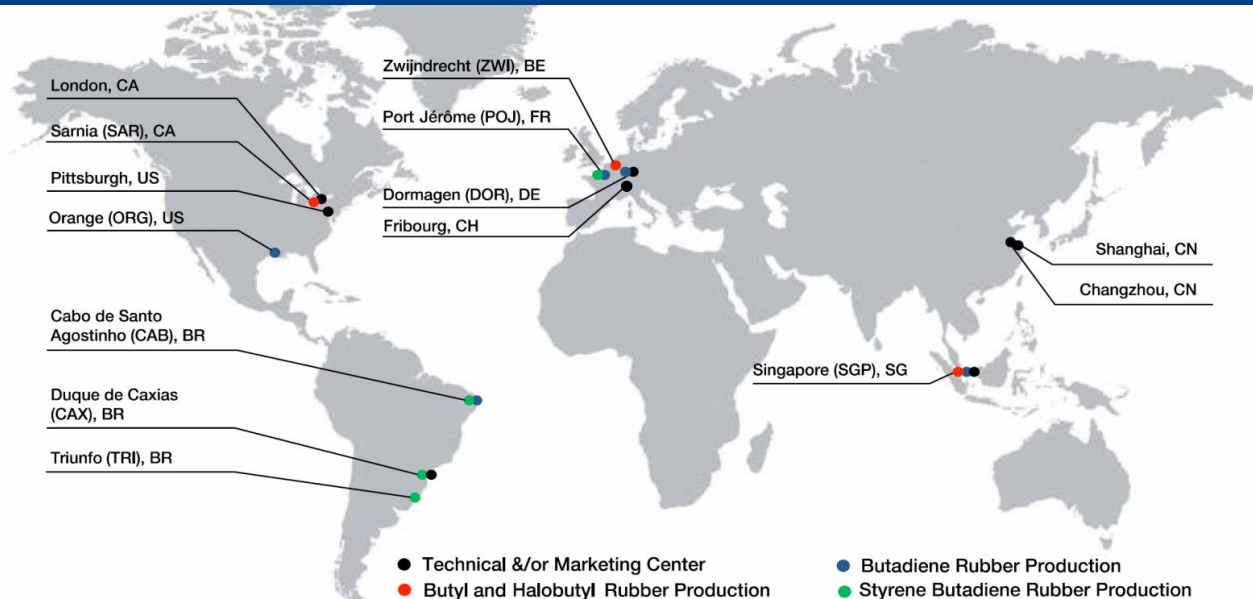
TYPICAL COMPOUND FORMULATION

Ingredient	phr
X_Butyl® RB 301	95
Chloroprene	5
Carbon Black	50
Stearic Acid	1
Castor Oil	5
Zinc Oxide	5
Phenolic Resin	10

Mechanical Properties	Unit	Typical Value*
Hardness	(ShA)	63
Tensile Strength	(MPa)	13
Modulus 100%	(MPa)	1.9
Modulus 200%	(MPa)	3.4
Elongation at break	(%)	670
Tear Strength	(kN/m)	40
Crack Growth Resistance to 600%	(kcycles)	>250
Compression Set (70 h/100 °C)	(%)	30

*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

NORAM

Technical Service

Sharon Guo

E-mail: sharon.guo@arlanxeo.com

Phone: +1 519 953 1728

Sales

Jay Capelli

E-mail: jay.capelli@arlanxeo.com

Phone: +1 412 809 2237

EMEA

Technical Service

Wilfried Braubach

E-mail: wilfried.braubach@arlanxeo.com

Phone: +49 221 8885 1085

Sales

Marco Eira

E-mail: marco.eira@arlanxeo.com

Phone: +41 26 422 8354

APAC

Technical Service

Esther Han

E-mail: esther.han@arlanxeo.com

Phone: +65 6725 5709

Sales

JooSang Kim

E-mail: joosang.kim@arlanxeo.com

Phone: +65 6725 5872

LATAM

Technical Service

Marcus Moutinho

E-mail: marcus.moutinho@arlanxeo.com

Phone: +55 21 2677 1219

Sales

Sergio Botafogo

E-mail: sergio.botafogo@arlanxeo.com

Phone: +55 21 2677 1344

Please contact us for additional information or visit us at
www.tsr.arlanxeo.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.

Health and Safety Information: Appropriate literature has been assembled which provides information concerning the health and safety precautions that must be observed when handling the ARLANXEO products mentioned in this publication. For materials mentioned which are not ARLANXEO products, appropriate industrial hygiene and other safety precautions recommended by their manufacturers should be followed. Before working with any of these products, you must read and become familiar with the available information on their hazards, proper use, and handling. This cannot be overemphasized. Information is available in several forms, e.g., *safety data sheets and product labels*. Consult your ARLANXEO representative or contact the Product Safety and Regulatory Affairs Department.

X_Butyl® is a registered trademark of ARLANXEO Switzerland S.A.

Note: The information contained in this publication is current as of September 2018.

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