

**D2C**  
Designed to Customer

*Reich*

## **“Y” rubber compound**

Taking flexible couplings to a new level

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SIMPLY **POWERFUL.**



# UNIQUE “Y” rubber compound

## Taking flexible couplings to a new level

The new “Y” rubber compound combines the positive properties of existing caoutchouc mixtures whilst also eliminating the undesirable side effects.

REICH has developed a dynamically highly stress-resistant “Y” rubber compound for the manufacture of highly torsionally flexible power transmission components.

The new elastomer has comparable dynamic properties to natural/synthetic caoutchouc mixtures, it is therefore equally highly resilient and can now be used in ambient temperatures of up to 120 °C. By using the “Y” compound, highly torsionally flexible and flexible drive components can now be used in a wider range of applications. The REICH products are thus entering a new dimension because the elastomer can be used in all coupling types. Elastomers made of natural/synthetic caoutchouc mixtures used as a standard – at REICH they are called “N” compounds – can be used in a temperature range of -40° C to +80 °C.

At higher ambient temperatures, silicone caoutchouc which is suitable for use up to +120°C, or sometimes up to +130°C, is usually employed.

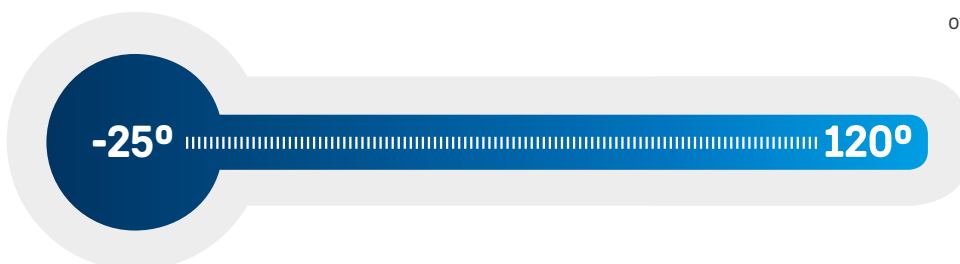
It is available at REICH under the designation “X” compound. Silicone, however, exhibits substantially inferior mechanical properties which requires a sufficiently high safety factor be taken

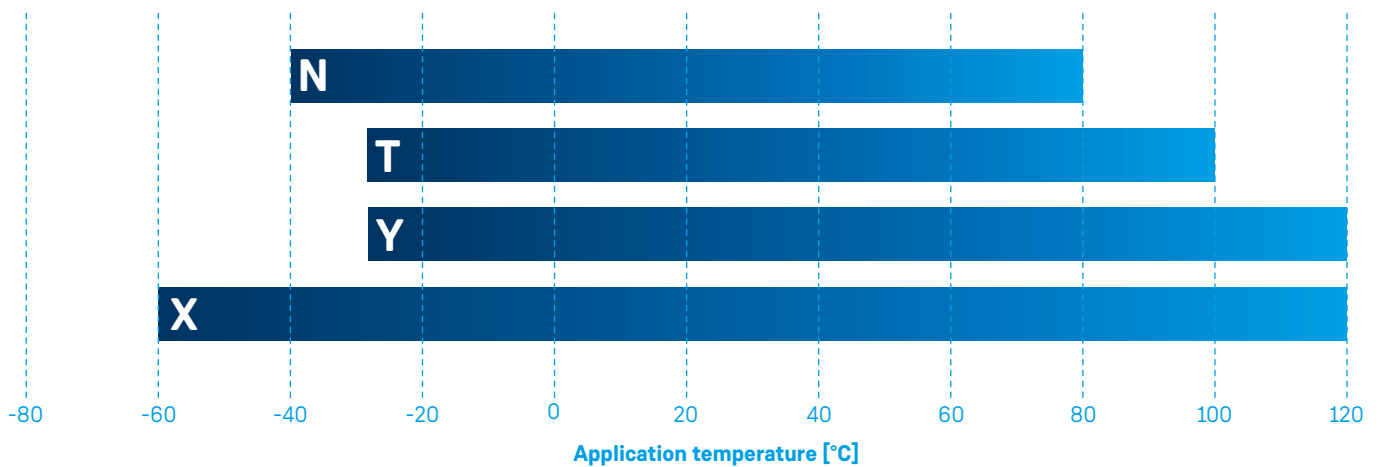
into account when designing couplings. A larger coupling version is often chosen as a result. Adding to this is the fact that silicone material is relatively expensive compared to natural caoutchouc.

This is why REICH has also been successfully using its temperature-stabilised natural/synthetic caoutchouc mixture as so-called “T” compound for more than 20 years. It offers almost identical mechanical properties compared to the standard but its service temperature ranges from -25 °C to +100 °C. This means that many applications where couplings are poorly ventilated in confined mounting spaces can be successfully equipped with this cost-effective special solution.

With the new “Y” compound, temperature resistance can be further improved beyond that of the “T” compound without compromising the high material strength as in the case of silicone, for example. The “Y” compound is highly heat-resistant in operating conditions from -25 °C to +120 °C. The material has an excellent resistance to UV light and ozone, aggressive media, such as chemicals, hot water and vapour. Its resistance to oils and fuels is comparable to that of the known natural/synthetic caoutchouc mixtures.

Initially, the “NY” compound was developed with a shore hardness of 65 ShA under the designation “Y” in order to cover a wide field of applications which are regarded as critical in the market. As with all elastomers from REICH, it was important to the developers to meet the highest current environmental requirements.





Beyond the applicable environmental regulations, REICH also pursues its self-defined objectives within the context of the ISO 14001 environmental certification. Utmost importance is given to the careful use of existing resources during development and production. After comprehensive qualification and testing of the technical data on the in-house test benches, the “Y” compound is now available for various coupling types at REICH. Thanks to its good strength properties, this material can also be used for pressure- and shear-stressed types. “Y” compound is thus an excellent addition to the existing elastomers for highly flexible, plug-in ARCUSAFLEX® rubber disc coupling, the highly torsionally flexible ARCUSAFLEX-VSK cardan drive shaft coupling, and the highly flexible, torsion-optimized TOK coupling.

It goes without saying that the “Y” compound can also be used for any customized solution in line with our motto of “D2C – Designed to Customer”.

In the meantime, hundreds of couplings have been successfully installed in various applications in the field. The couplings are exposed to the toughest conditions, be it in compressors in the desert, crushers with extreme shock loads, generator systems with minimal mounting length, CHPs with many start-stop processes or transfer cases with insufficiently ventilated coupling installation space. With the use of “Y” compound, the service life could be improved many times over in these temperature critical applications.

As a manufacturer of highly flexible power transmission elements with its own rubber production, REICH supplies companies from all over the world in the fields of:

- Combined heat/power and biogas plants
- Marine
- Construction equipment
- Agriculture and forest engineering
- Test benches
- Pumps and compressors
- Rail road and traffic engineering
- General mechanical engineering/Conveying Technology

Since its foundation in the year 1946, REICH has been one of the highly specialised companies in the field of drive technology. From the very beginning, everything has centred around rubber technology, elastomers and bonding with any metal. Development and production have been carried out in-house since these early years so that high competence is ensured in the design and manufacture of couplings for the respective drive. The basis for the company’s sustained success is continuous innovation, customer proximity and service, quality and a personnel policy that offers equal opportunities and continuous further development.









## “Y” rubber compound

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### Industrial solutions:

-  Power generation
-  Mobile applications
-  Test benches
-  Pumps & compressors
-  Industry
-  Ship & port engineering

### Headquarter:

Dipl.-Ing. Herwarth Reich GmbH  
Vierhausstrasse 53 · 44807 Bochum

 +49 234 95916-0

 [mail@reich-kupplungen.com](mailto:mail@reich-kupplungen.com)

 [www.reich-kupplungen.com](http://www.reich-kupplungen.com)

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### March 2020 edition

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