

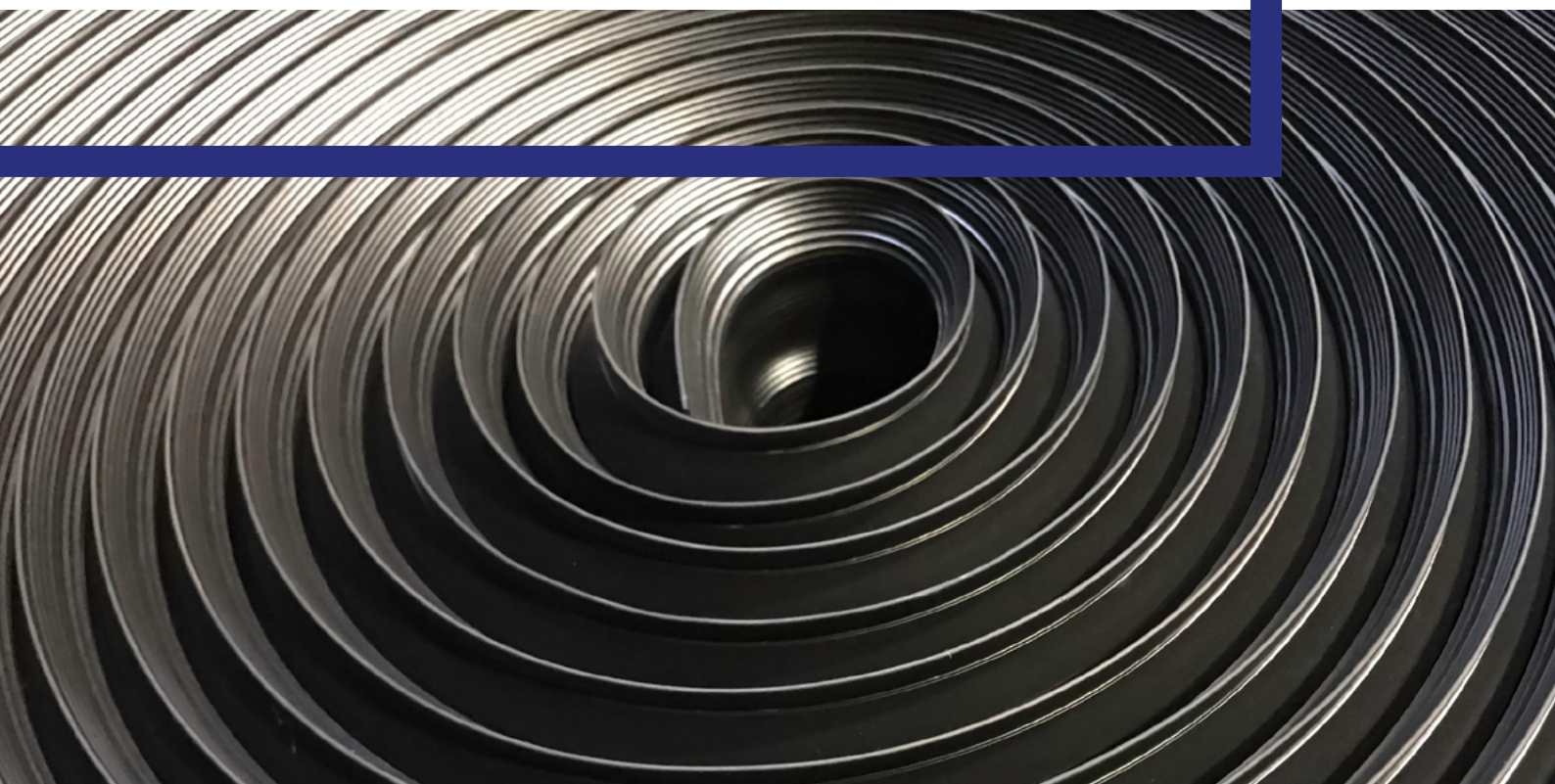


Werba Mobility

Rubber Product Line

Rubber Line Portfolio

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Sustainable tire – an ambitious target!

***With alternative sourcing
it can be achieved!***

The linear economy is the rubber sector's most significant challenge; decoupling from it requires an entirely new raw material base. Implementing a circular resource approach enables a sustainable future for the rubber industry. Alternatives to hydrocarbon-based materials are needed to improve circularity.

Werba-Chem has set a goal to develop new replacements; native organic-based materials. Plant substances are the future.

Werba-Chem focuses on developing solutions with significantly improved ecological impact in which no fossil-fuel based products are needed. This saves natural resources and makes the sourcing process more flexible.

Our ultimate goal is to produce industrial chemicals using renewable energy and plant-based raw materials.

Werba - Chem is your partner in making sustainable changes to your production processes.

Our team is available for inquiries and requirements with passion and conviction.

Our Rubber Division focuses on developing:

- Replacements for petroleum-based additives.
- Secondary raw materials.
- Solutions to reduce the energy consumption of manufacturing processes.

The prerequisite is the use of the raw materials that are safe for humans, animals and the environment.



Tap your full optimizing potential with the help of our products

**WERBATEC® WERBASIL® WERBABLEND®
WERBUL® WERBALINK® WERBALUB®**

- ✓ Reduced energy costs and less waste during mixing
- ✓ Shorter processing time
- ✓ Bring more cost reduction
- ✓ Less “reject” due to higher quality of extrusion
- ✓ Higher building or green tack of semi-finished products

Anti-ozonant waxes

i Description

+✦ Application

WERBATEC® KNK

light yellowish pastilles
or micro-pearls

i Wax for light and dark compounds

+✦ Truck tyres, AGRO

WERBATEC® F

light yellowish pastilles
or micro-pearls

i Special ozone protection wax for dark compounds.

+✦ Technical rubber goods

WERBATEC® W

light yellowish pastilles
or micro-pearls

i Wax for high quality light and dark compounds

+✦ Truck tyres, AGRO



Multifunctional resins

Tackifying & Homogenizing

i Description

⚙️ Function

✦✦ Application

Werba**blend** H90

Small, black, free-flowing pearls

i C9 Resin

⚙️ Homogenizer for dark compounds

✦✦ Rubber blends

Werba**blend** HR95

Yellow-orange granules or pastilles

i C5/C9 Resin

⚙️ PAH free, homogenizer for dark compound

✦✦ Rubber blends

Werba**blend**

WB H200, H200S

Yellow - brown flakes

i Phenol and PHA free resins

⚙️ Green Tack homogenizer and improver

✦✦ Technical rubber goods, tyres

Werba**blend** HP 125

Yellow - brown flakes

i Phenol and PHA free resins

⚙️ Strong Green Tack and homogenizer improver

✦✦ Technical rubber goods, tyres



Processing aids




 Description

 Function

 Application




Werbalub ZS

Grey-brown flakes, pastilles or micro-pearls

-  Highly efficient zinc soap
-  Internal lubricant
-  Technical rubber goods, tyres




Werbalub ZP

Beige-brown micro - flakes or pastilles

-  Composition of zinc soap and esters
-  Internal and external lubricant for extrusion and injection moulding
-  Technical rubber goods, tyres





Werbalub PP

Grey-brown flakes, pastilles or micro-pearls

-  Composition of zinc soap and synthetic waxes
-  Internal and external lubricant for non-conductive compounds UV resistance (Xenon Test)
-  Technical rubber goods





Werbalub PEO

Off white granules

-  Multifunctional blend of synthetic waxes
-  Form giving and mould release
-  External lubricant for special application
-  Technical rubber goods




Werbalub CP

White flakes or pastilles

-  Composition of special synthetic esters
-  Highly efficient external lubricant
-  Dispersion improver for high silica filled compounds
-  Technical rubber goods, tyres




Werbalub GP

White flakes or pastilles

-  Composition of synthetic waxes and esters
-  Internal and external lubricant for non-conductive compounds
-  Technical rubber goods, tyres

Werbalink SIGL 50




White powder

-  Dispersion agent (Liquid on carrier)
-  Silica dispersion improver
-  Technical rubber goods, tyres







Werbatec P10

Yellow powder

-  Pure DBD
-  Peptizer active substance
-  Natural Rubber




Werbatec P250

Beige-brown micro-flakes
or pastilles

-  Composition of processing aid and peptizer for light and dark compounds
-  Flowing properties improver
-  Processing promoter
-  Natural Rubber




Werbatec P300

Beige-brown micro-flakes
or pastilles

-  Composition of processing aid and peptizer for light and dark compounds
-  High - quality extrusion
-  Natural Rubber

Werbatec P400

Green granules



-  DBD peptizer with 40% active substance
-  Mastication
-  Natural Rubber

Mineral fillers

Synthetic silica



Werbasil W3P

White powder

-  Synthetic amorphous silica, avg. BET 170 m²/g
-  Technical Rubber goods, tyres


Werbasil W4G

White micro-granules

-  Highly dispersible silica (HDS); avg. BET 210 m²/g
-  Tyres

Natural silica

Werbalink

-  Products are functional fillers and/or mixtures of functional fillers.

Filler	BET m ² /g	x 50 µm Lasergraph	d 50 µm Sedigraph
WERBALINK® VPK 76 (82/84) mineral extender, platy, silicate based	19	×	1.3
WERBALINK® BC functional filler, decreases the gas permeability	22	2.7	1.0
WERBALINK® MPK 2 mineral extender calcined	15	2.0	×
WERBALINK® KK 20R calcined kaolin	13	1.9	1.8
WERBALINK® DP blend of lamellar minerals good for inner liner	14	5.0	×
WERBALINK® EP	15	2.3	×



WERBALINK® VPK 76

Mineralogy: layered silicate mineral, 90% kaolinite, remains include mainly mica.

Description: chemically inert, hydrophilic (OH-groups allows interaction with water and air humidity); very low abrasiveness (Einlehner method).

Properties in rubber compound: compared to standard china clay quality, Werbalink VPK 76 increases strength and hardness of vulcanized product.

WERBALINK® MPK 2

Mineralogy: 90% amorphous structure and remaining crystalline phase is a mixture of muscovite, anatase, kaolinite, quartz.

Description: chemically inert, partly calcined, hydrophobic, low level of OH-groups, low affinity to water, porous, the particles have a low tendency to stick together.

Properties in rubber compound: excellent extrusion and good physical mechanical properties, reduction of plating of mouth pieces and forms, elimination of porosity.

WERBALINK® KK 20 R

Mineralogy: 85% amorphous structure and remaining crystalline phase is a mixture of muscovite, anatase, kaolinite, quartz.

Description: chemically inert, full calcined, hydrophobic, without OH-groups, no affinity to water, closed, the particles don't have tendency to stick together.

Properties in rubber compound: good physical-mechanical results, good extrusion properties, electrical resistance after vulcanisation can be increased.

WERBALINK® EP


Mineralogy: composition of various silicates


Description: Mineral blend of layered silicates and silica

Properties in rubber compound: semi-active filler for excellent extrusion properties in non-conductive compounds, reinforces mechanical properties

Plasticizers

 Description

 Function

 Application

Werba**blend** S-50


Yellow to brown liquid

 Light paraffinic softener

 EPDM

Werba**blend** SX


Yellow to brown liquid

 Medium paraffinic softener

 EPDM

Werba**blend** EHO

Yellow to brown liquid

 Renewable plasticizer in multiphase blend systems

 Tg modifier for SBR

Werba**blend** FAE

Dark brown crumb

 Factice

 Oil replacement


 NR, SBR, BR, EPDM

Werba**blend** FAN

Light brown crumb

 Factice

 Oil replacement

 CR, NBR

Sulphur

Natural grinded sulphur

Wersul 1

Yellow-grey powder

Fine grinded sulphur, oiled

Wersul 2

Yellow-grey powder

Grinded sulphur, oiled

Insoluble Sulphur

Polsinex 20 (HQ)

Yellow powder

Insoluble sulphur, oiled 20%

Polsinex 33 (HQ)

Yellow powder

Insoluble sulphur, oiled 30%



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