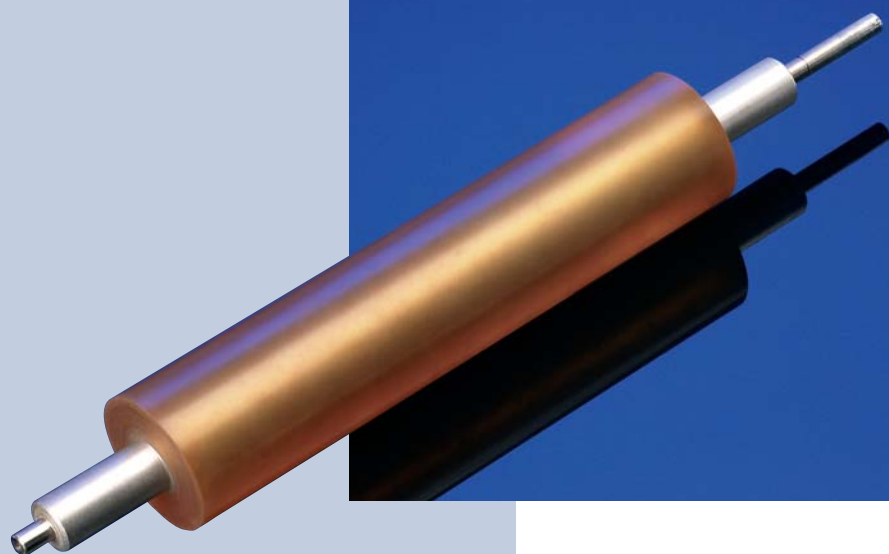


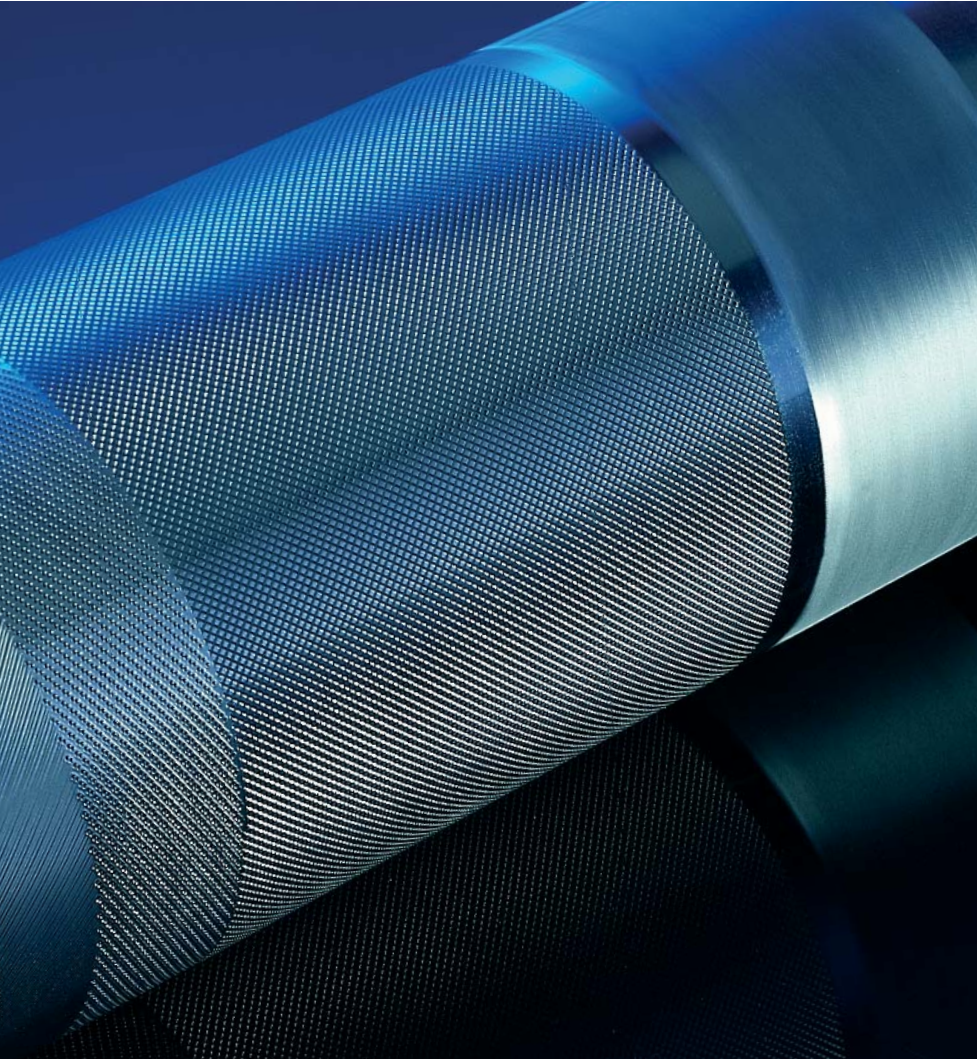
Rubber rollers
Design rollers
Anilox rollers
Roller cores
Sleeves
Heating, chill and
smoothing rollers



CONTENTS

	<i>page</i>
<i>The company</i>	<i>3</i>
<i>Core manufacture</i>	<i>4</i>
<i>Roller finishing</i>	<i>5</i>
<i>Heating, chill and smoothing rollers</i>	<i>8</i>
<i>Service</i>	<i>10</i>
<i>Materials</i>	<i>11</i>





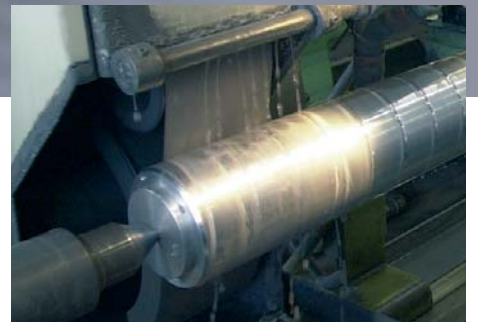
Branches of industry

- *Printing industry, flexographic printing*
- *Film material industry*
- *Corrugated cardboard industry*
- *Paper converting industry*
- *Wood and furniture industry*
- *Steel and metalworking industry*
- *Textile industry*
- *Plant and machine engineering*

Through our commitment to ultimate precision and total reliability we have succeeded in gaining the trust of machine engineering works and end customers alike from all of the above-mentioned branches of industry.

Our ability to provide individual solutions to specific customer requirements as well as our flexibility in production schedules guarantees satisfaction for our customers, who include the manufacturers and suppliers of well-known brands as well as prestigious companies. Our high quality rollers are only delivered once they have undergone intensive product inspection.

CORE MANUFACTURE



Materials

Turning

Milling

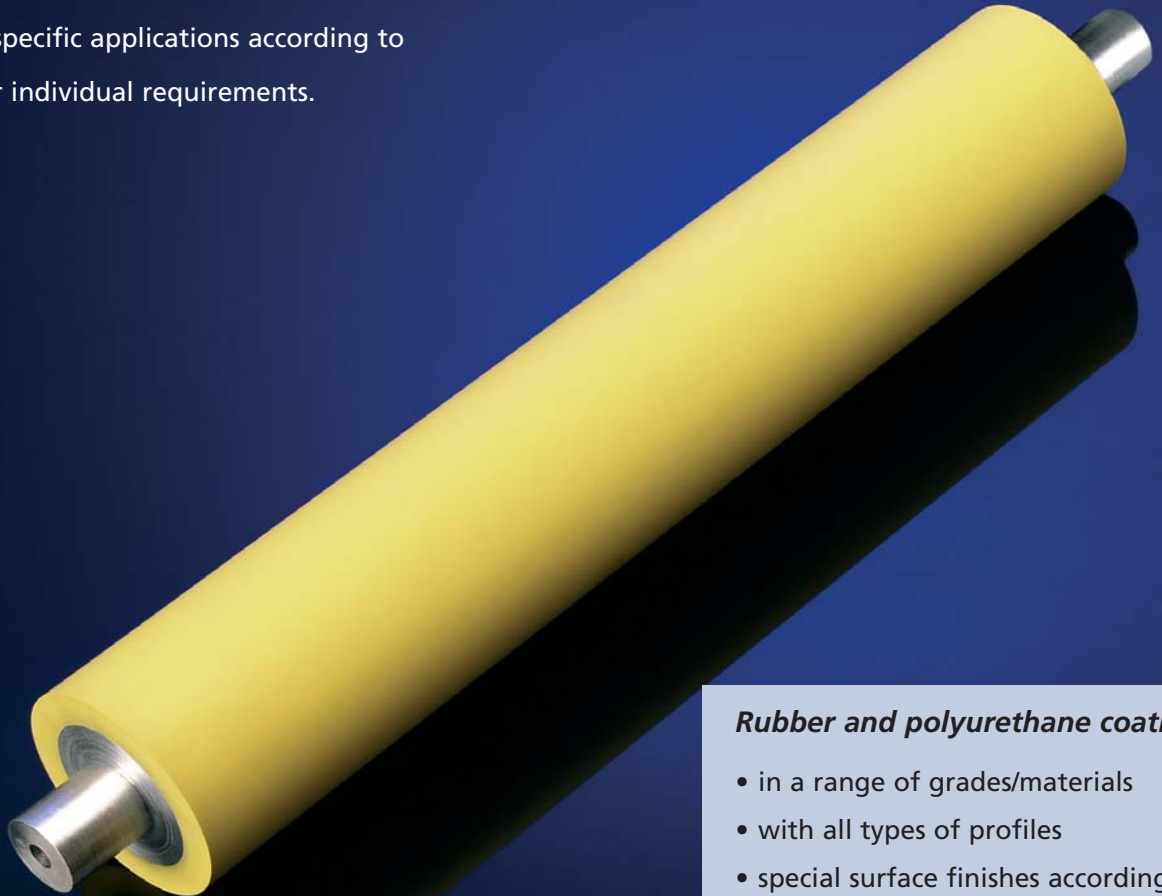
Welding

Polishing

Balancing

We use the latest production equipment to manufacture roller cores or bodies specifically in the material of your choice and in accordance with your drawings or designs.

Roller bodies are both finished and reconditioned for specific applications according to your individual requirements.

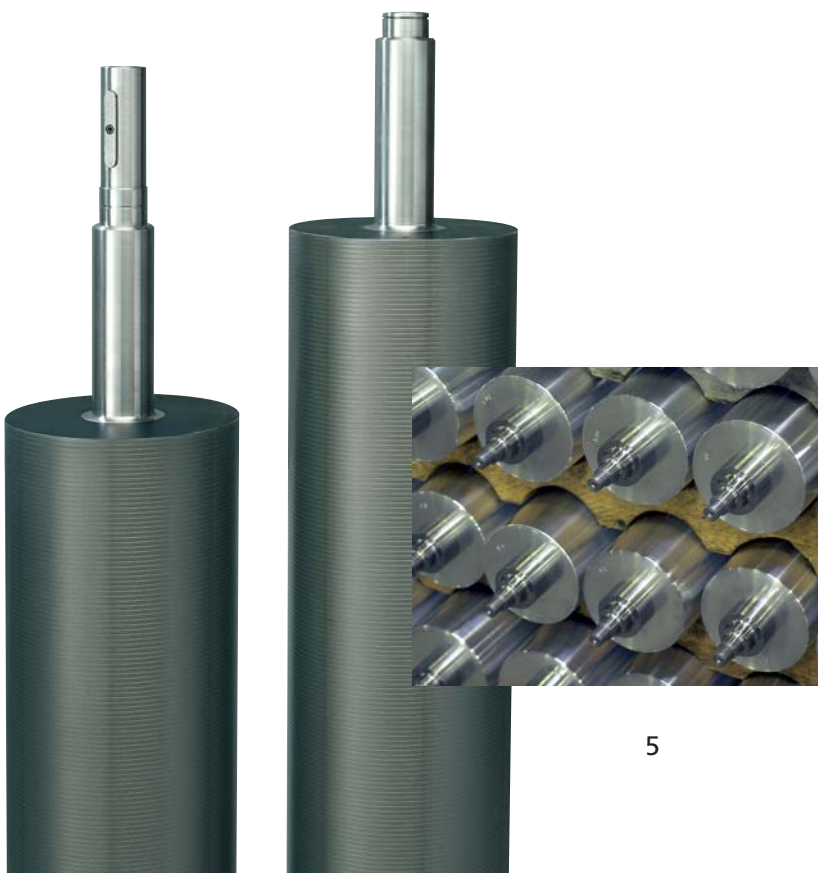


Rubber and polyurethane coating

- in a range of grades/materials
- with all types of profiles
- special surface finishes according to customers' wishes

Idler rollers and guide rollers

- Aluminium, stainless steel, steel
- Surface finishes (anodized, hard coat, non-stick, chrome-plated)
- Profiling in accordance with customers' wishes
- Design with fixed journals or with a full-length shaft inside



ROLLER FINISHING

Anilox rollers

- Aluminium, stainless steel, steel
- Surface finishes
(anodized, hard coat, non-stick, chrome-plated)
- Profiling in accordance with customers' wishes
- Design with fixed journals or with a full-length shaft inside

Chrome rollers

- in all designs
- Re-engineering and complete manufacture
- Impression cylinders
- Air cylinders

GFRP stereotype sleeves, as well as GFRP/CFRP adapters

- in standard design
(for solvent-free inks)
- also conductive for solvent-containing inks according to ATEX 95
- in hard and foamed design

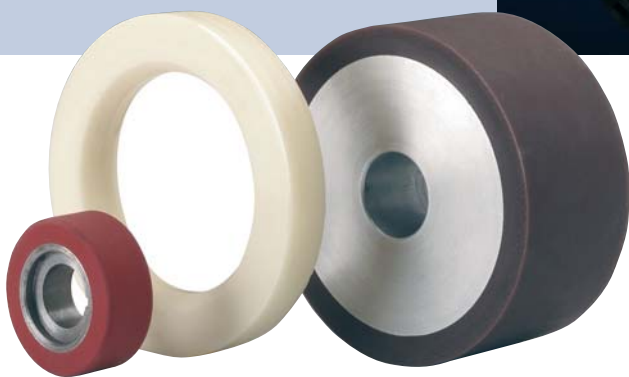


Design and block area sleeves/rollers

- in materials for solvent-containing/
solvent-free media
- as a block area sleeve/roller, sold in
dimensions according to customers'
wishes
- laser-engraved in accordance with
customers' specifications
- Repro processing/creation

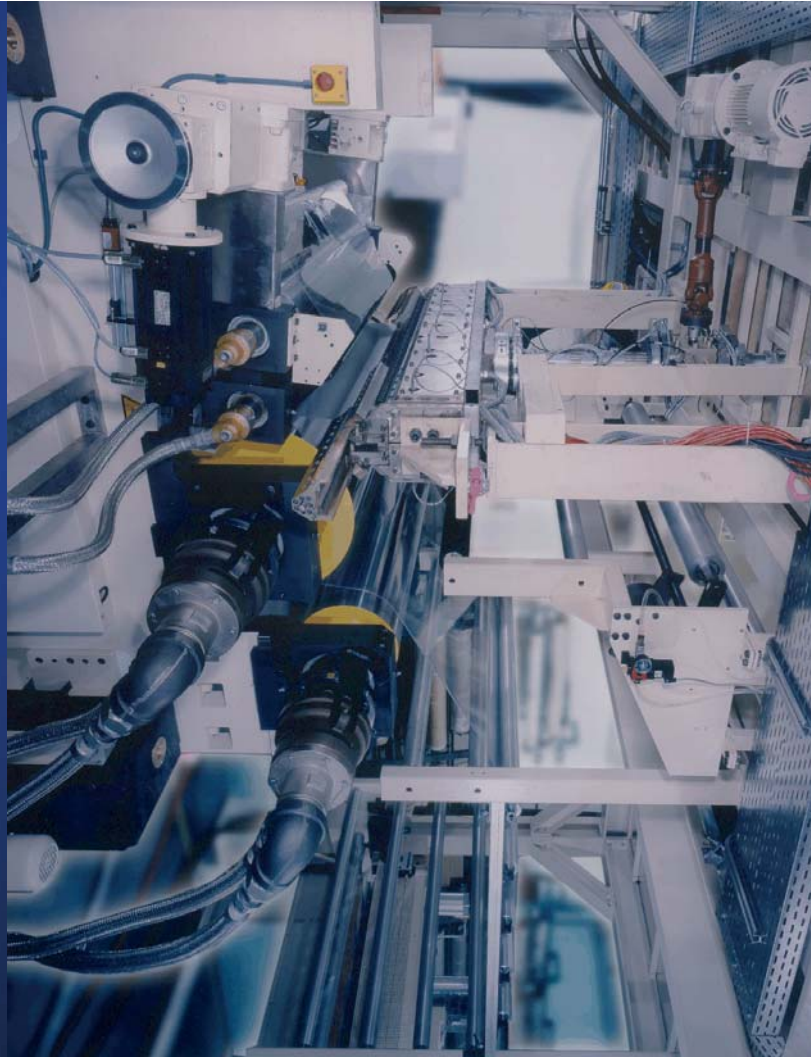
Rollers and printing forms in rubber and polyurethane

- Complete manufacture
- Re-coating of rollers
- with all types of profiles
- Batch/serial production



As a customer-oriented company, however, we do not want to limit our service offer to providing just a standard service, but would also like to provide you with special products as well as special finishes on request.

HEATING AND CHILL ROLLERS



Material

Displacers

Conductive coil terminal

Surface finishing

Design

Areas of application

ESWE-FLEX heating and chill rollers are manufactured from steel, stainless steel and aluminium and may be used for all kinds of heating and chilling applications due to various construction designs. They can be finished for specific applications by hardening, coating with tungsten carbide, hard chrome-plating, hard coats, Teflon, rubber or silicone. According to your requirements, we use mechanical processing to achieve roughness values of less than $R_t 0.2 \mu m$, depending on the type of coating.

SMOOTHING ROLLERS



Our double-walled standard smoothing rollers, which can be used for all applications in the smoothing as well as the calendering unit, are fitted with an intermediate conductive coil and are hard chrome-plated. The roughness values of their polished surfaces are below R_t 0.2 μm .

For loads greater than 500 N/cm we produce smoothing rollers with hardened surfaces, which are designed for line loads of up to 1500 N/cm, depending on the size of the roller.



To compensate for the elastic line, we use our BKW roller, whose special internal construction produces an even product split.



SERVICE

We calculate all roller dimensions according to specified parameters such as deflection, temperature and weight, as well as the moment of inertia, maximum load and performance, so that we can provide you with top quality products as a result.



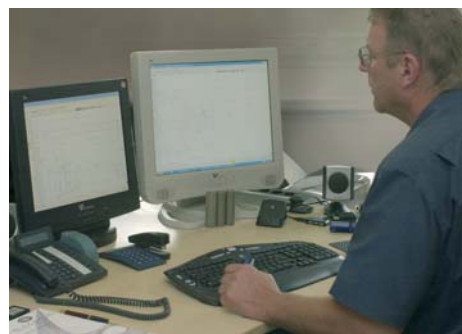
Collect and return service

*Customer-oriented advice and
on-site attended trials*

Production of drawings

Calculation of roller dimensions

Quality assurance

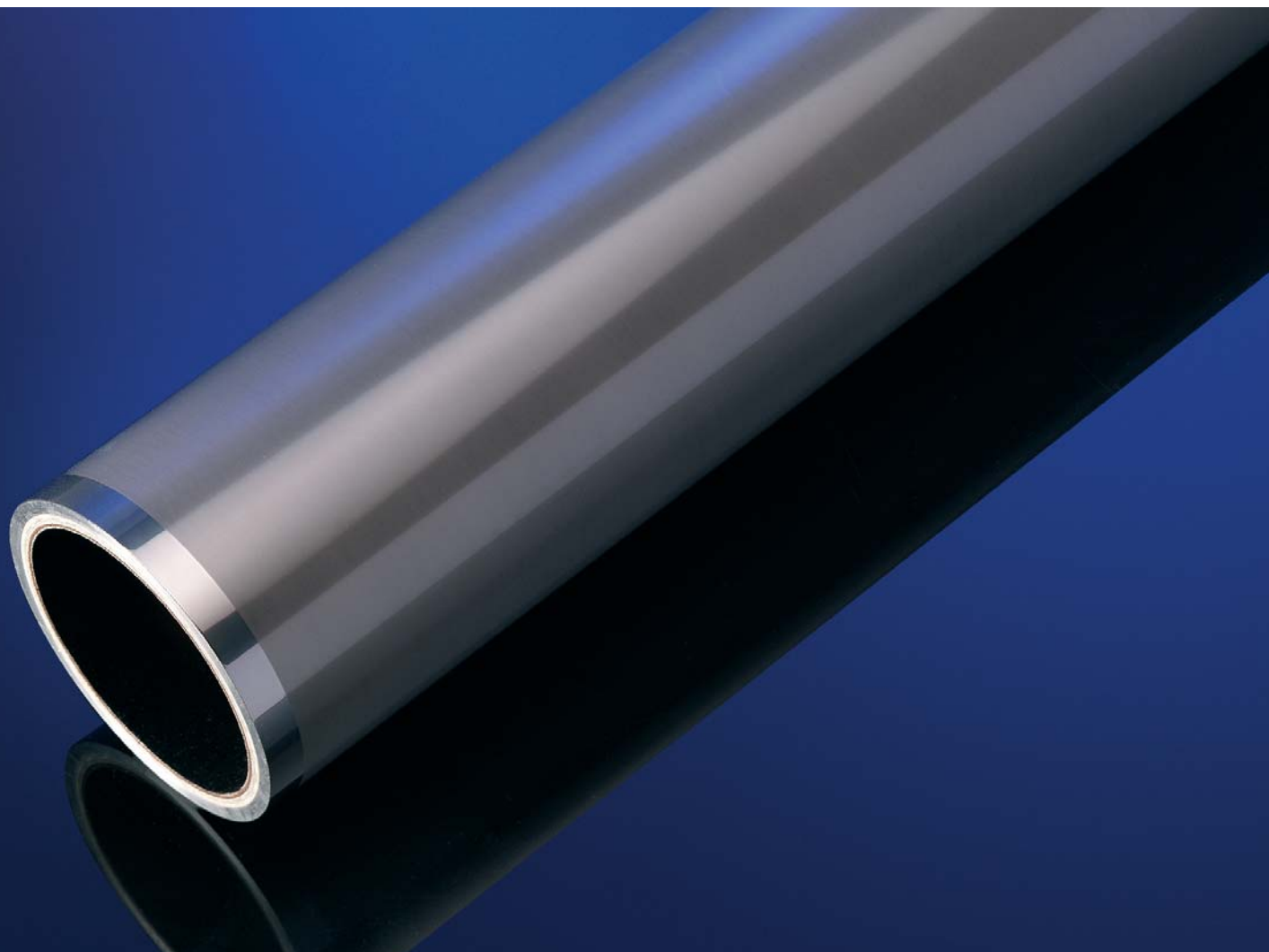


ESWE FLEX *list of materials/characteristics*

Walzen GmbH

Properties and areas of application	Hardness in Shore A \pm 5	Temperature max. °C	Linear load N/cm
AN rub-resistant, very good recovery characteristics, alcohol-resistant, suitable for water-soluble inks	30 - 90	100 °C	hardness-dependent
ANHG Caustic and alkali-resistant, alcohol- and acid-resistant, squeeze, nip and transport rollers also electrically conductive	100	100 °C	approx. 60
AC resistant to esters and ketones, DOP, adjustable for electrical conductivity, ozone-resistant	30 - 85	120 °C	hardness-dependent
LN very good dynamic properties, also electrically conductive, resistant to oil, grease and petrol, rub-resistant	25 - 95	120 °C	hardness-dependent
LS (Silicon) resistant to high temperatures, ozone, particularly non-stick, good insulating properties, e.g. corona pre-treatment and paster rollers	15 - 90	180 °C	hardness-dependent
LSHI as LS, but better thermal resistance	40 - 90	230 °C	hardness-dependent
LSHR as LS, but better mechanical resistance	70	180 °C	60
HO particularly rub-resistant, ozone- and acid-resistant, oil-resistant, some resistance to alkalis and alcohol, suitable for laminating rollers	60, 70, 80	150 °C	40 - 50
PN resistant to acid and alkali, excellent rebound capacity, ozone-resistant	50 - 90	130 °C	hardness-dependent
VT Resistant to oils, greases, petroleum etc., acid-resistant, outstanding resistance to chlorinated, aliphatic and aromatic hydrocarbons (e.g. tri-, perchloroethylene, petroleum ether, benzene, toluene, xylene)	60, 70, 80	250 °C	40 - 50
ESWE-Prene (pure) highly rub- and cut-resistant, retains elasticity even at high hardness values, high mechanical resistance, resistant to oil and petrol	50 - 90	130 °C	hardness-dependent

Other materials on request



ESWE-FLEX Walzen GmbH

Hitdorfer Straße 14b
D-40764 Langenfeld
Germany

Phone +49 (0) 2173 39924-30
Telefax +49 (0) 2173 39924-55
E-Mail info@eswe-flex.de