

Teknikum® Rubber Lined STEEL PIPES



APPLICATIONS

Rubber lined steel pipes are the best choice for pipelines where a need of inflexibility and permanent load bearing capacity of a pipe is critical. Such pipeline sections are often found in slurry process flows of concentrating plants for areas of junction to pumps, technological equipment (mills, separators, flotation cells, thickeners, filters, cyclones, classifiers), process tanks, flows separation in mining, cement industry and coal industry.

Rubber lining is also a safe solution for critical clean water pipelines in nuclear power plants and ships, as well as for wear protection in food contact applications.

Teknikum rubber lining provides long life and wear protection for the pipes, while ensuring maximum capacity of material handling.

ADVANTAGES

- Great wear resistance of lining
- Very strong adhesion to steel
- Good strength values
- Low flow resistance
- Listed standard sizes and forms are available with quick delivery
- Retains the free flow area without turbulence at the couplings
- Pipe ends are vulcanized by rubber to eliminate leakages without the need of extra gaskets
- Delivery reliability – the used rubber compounds are developed and manufactured in-house by Teknikum

CUSTOMIZED SOLUTIONS

- Customized configurations of pipes and branches as well as complex technical solution are made by order
- Wide range of customized arrangements, typical range from DN50 mm up to DN 400 mm.
- Rubber lining with intermediate wear indication red layer is possible for visual wear indication.

LINING RUBBER

Teknikum WEAR SAFE™ Black 40 or 60

Natural rubber and butadiene rubber mixture based on black soft rubber, which is highly resistant to various abrasive slurries. This proven compound is used in mining environment, seawater applications and various process industry applications.

The hardness 40 ShA is great for abrasion resistance supported by excellent resilience to stand flexible surface for material flow.

The hardness 60 ShA is great for tear resistance supported by excellent resilience to stand flexible surface for material flow.

Developed for the mining industry, e.g. material transfer at concentration plants and tailings pipelines.

Autoclave vulcanization.

More details on compound datasheet.

Teknikum WEAR SAFE™ Red 40

Natural rubber and butadiene rubber mixture based on black soft rubber compound, which is highly resistant to various abrasive slurries used at mining environment and other process industry applications.

The hardness 40 ShA is great for abrasion resistance supported by excellent resilience to stand flexible surface for material flow.

Developed for the mining industry, e.g. material transfer at concentration plants and tailings pipelines. The red color allows use as visual wear indicator in case of two (2) layers of rubber lining is placed (black soft rubber lining on top).

Autoclave vulcanization.

More details on compound datasheet.

Teknikum CLEAN SAFE™ FDA

Natural rubber based white soft rubber, which is resistant to various cleaning agents and aqueous solutions. This compound is FDA 21 CFR 177.2600 (e) approved material and based on natural rubber (NR) and styrene butadiene rubber (SBR) mix.

This rubber compound is specially developed for rubber lining applications where low migration of any chemicals from the lining is

critical, such as nuclear power plants, clean water lines of ships or food contact applications.

Autoclave vulcanization.

More details on compound datasheet.

TECHNICAL PROPERTIES

Standard configuration includes:

- Flat flanges according to EN1092-1
- Steel: P235 JRG2
- Typical flange connection PN10
- Rubber lining elastomer:
 - Natural rubber and butadiene rubber (NR/BR)
 - Hardness 40 or 60 ShA
 - Color black (or red or white)
- Thickness of rubber lining:
 - 5 mm for pipes DN50-DN300, flanges 5mm
 - 10 mm from DN350 mm, flanges 5mm
- Body steel in accordance with P235TR1
- Surface treatment:
 - preparation grade Sa 2.5
 - painting system EP180/1
 - default color gray
- Mounting kit for flanges can be included into a scope
- Any other standards can be applied in the manufacturing according to customers' requirements

QUALITY & COMPLIANCE

The manufacturing quality control is based on ISO-9001 certified systems.

Teknikum rubber compounds do not contain any RoHS 2 controlled substances or phthalates and are compliant with REACH directive.

The compounds do not contain any substances named on the SVHC (Substances of Very High Concern) candidate list XIV of REACH.

More information

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MANUFACTURER

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Sales & Marketing

Teknikum Group, Lining BU

ORDER REFERENCE

Rubber Lined Steel Pipes						
	Product code	DN	k	D	L	s
	LRLP-050	50	125	165	200	5
	LRLP-080	80	145	200	230	5
	LRLP-100	100	180	220	280	5
	LRLP-125	125	210	250	280	5
	LRLP-150	150	240	285	305	5
	LRLP-200	200	295	340	400	5
	LRLP-250	250	350	395	400	5
	LRLP-300	300	400	445	460	5
	LRLP-350	350	460	505	500	10
	LRLP-400	400	515	565	550	10

REFERENCE IMAGES

Rubber lining with **Teknikum WEAR SAFE™ Black 40 or 60**



Rubber lining with

Teknikum WEAR SAFE™ Red 40 + Teknikum WEAR SAFE™ Black 40 or 60



Rubber lining with **Teknikum CLEAN SAFE™ FDA**

