



# SEAL ABLE

pioneers in profiles

## SEALABLE SAFETY PROFILES

Profiles for crossings between track and road



# SEALABLE

pioneers in profiles

**Depending on the requirements in your project, we develop individually adapted solutions with high-quality safety profiles.**

## RAIL MEETS ROAD ONE LESS SOURCE OF DANGER

The embedding of tracks within the road is a crucial act for planners and constructors. The emphasis lies on the problematic connection between track and road through high-maintenance grooves and the danger of accidents for cyclists and pedestrians.

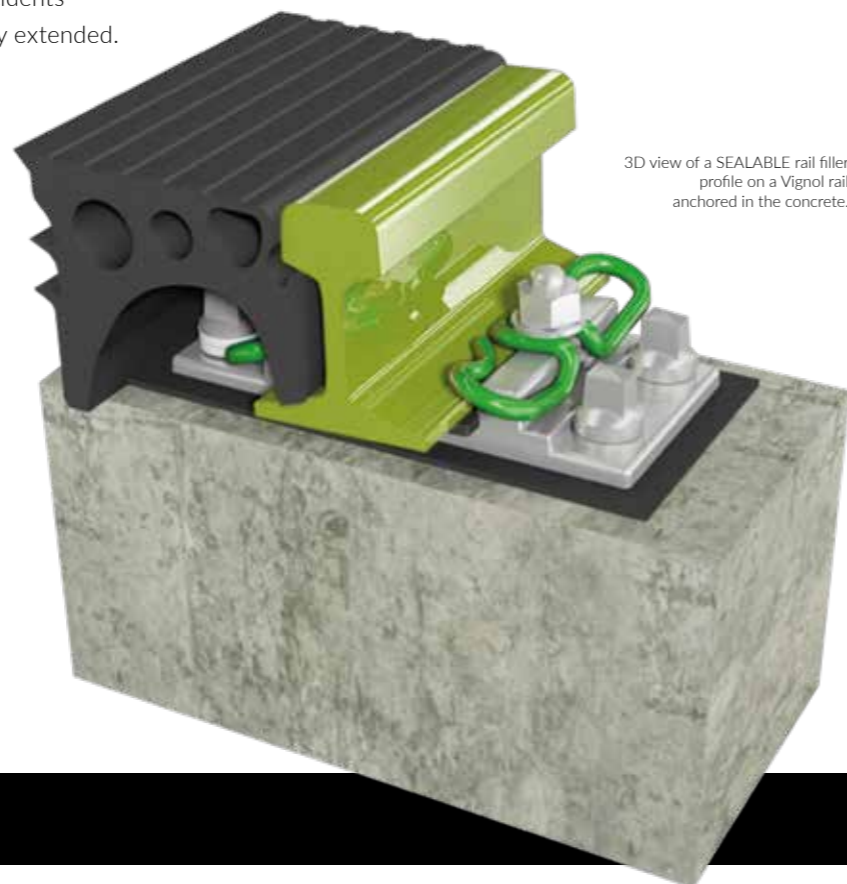
By using a permanently elastic material from SEALABLE, geometrically matched to the respective installation location, problems of this kind can be solved, accidents avoided and the availability of the track decisively extended.

This brochure provides an overview of the available products and sets a basis for the planning of critical points. Tailor-made solutions can be developed if requested.

In many cases the connection between track and road is unsatisfactory. The gap which is necessary for the wheel of the rail vehicle often forms a hazard. Especially in factory or workshop buildings this leads to accidents. This problem also applies to level crossings or factory roads.

Long outage times, increasing insurance expenses – all these factors are consequences of a rather small gap.

The safety profile "Rail meets road" from SEALABLE provides a toolbox on long-lasting and reliable profiles to solve these problems quickly and efficiently.



3D view of a SEALABLE rail filler profile on a Vignol rail anchored in the concrete.

*The ICE plant in Cologne Nippes has a capacity of 4 tracks á 410 meters where up to 8 units of the ICE 1,2,3 and up to four units of the ICE 4 can be maintained. Employees of the plant are using bikes and scooters to get around. To support the staff, driverless vehicles are used. To ensure a barrier-free workspace between Human and Robot, 260 meters of track were equipped with safety profiles from SEALABLE.*



### WE ARE INNOVATION.

Together with you, we develop ideas up to product maturity and support you throughout the entire product life cycle.



### WE ARE EXPERTS.

You benefit from established resources, structures, and know-how through a trusting customer relationship.

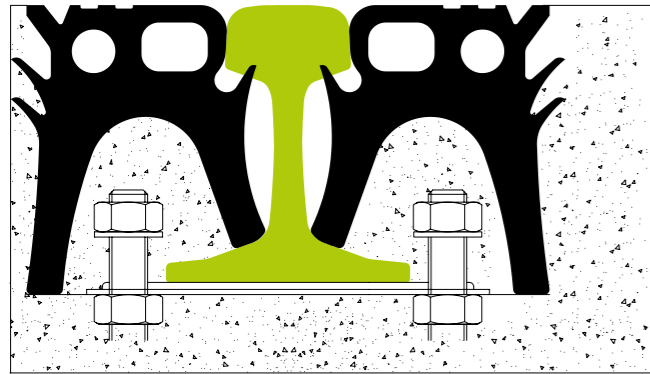


### WE ARE REGIONAL-GLOBAL.

Regional roots combined with a worldwide network of long-term partners offer you reliable service on-site.

## CONSTRUCTION TYPES

### RAIL FILLER PROFILES



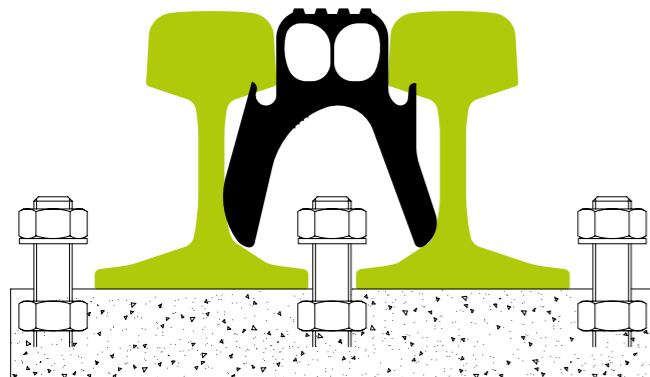
#### APPLICATION

Rail Filler Profiles are mainly used for railroad crossings, industrial tracks, and workshop areas who are passed with a speed of 20 km/h by rail vehicles. There are no constraints for individual transportation concerning speed and strains for vehicles.

#### ADVANTAGES

The sealing of the rail groove through SEALABLEs safety system nearly excludes all accidents from pedestrians and cyclists. The easy access to track attachment through quick dismantling of the profiles has a cost saving impact on maintenance processes.

### LINDAU SYSTEM



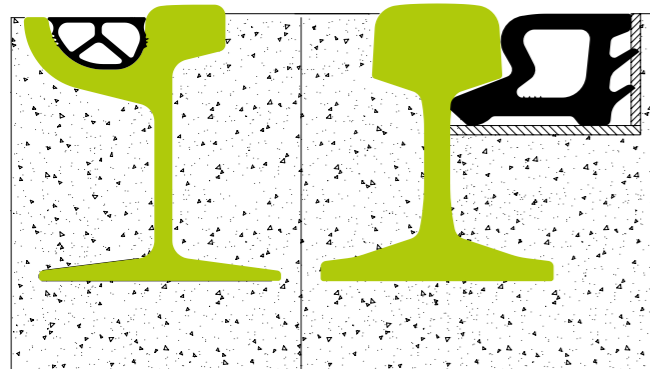
#### APPLICATION

This system is a special version of track groove sealing profiles and it is used at railroad crossings. It can be passed with a speed of 20 km/h by rail vehicles and does not hold any constraints for individual transportation.

#### ADVANTAGES

Through filling the rail groove with the Lindau system, the danger of risks for pedestrians and cyclists can be eliminated. Through its simple structure it is an inexpensive way to decrease accidents at railroad crossings.

### SAFETY PROFILES



Profiles for Grooved Rails

Profiles for Vignol Rails

#### APPLICATION

These profiles are mainly applied on rarely used tracks within industry and workshop areas. They can also be used for temporary sealing of tram tracks for urban events. This system also does not hold any constraints for individual transportation concerning speed and strains for vehicles.

#### ADVANTAGES

The easy application and removal of the safety tracks enables easy temporary usage. The risk for pedestrians and cyclists can be eliminated. There is a possibility to conglutinate the profile within the tracks.

## MATERIAL

The material used for our products aligns with the current norm concerning EPDM: DIN 7865 - Elastomeric-Water stops for sealing joints in concrete.

Through its excellent ageing resistance, its reduction of airborne-sound radiation of tracks and its resistance against permanent deformation, the synthetic rubber suits as perfect material for the track industry. Furthermore, EPDM is resistant to extreme temperatures, insensitive to oxidation, resistant to various chemical products and holds dielectric properties.

## LIFETIME & MAINTENANCE

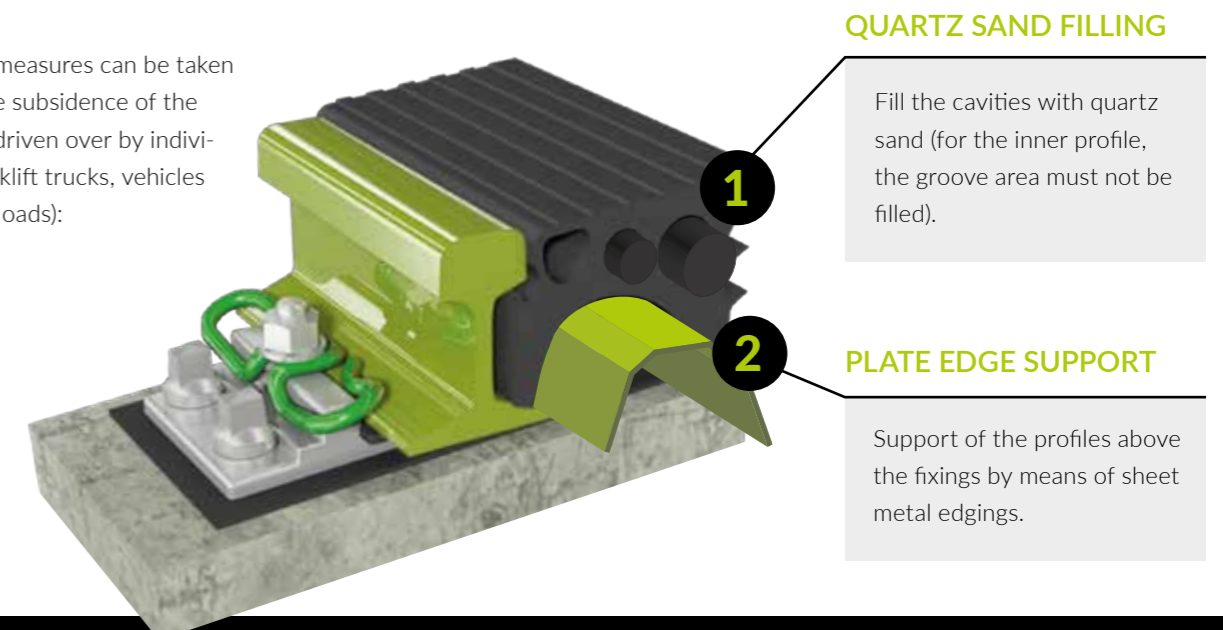
These products are wearing parts and are used under different conditions. This is the reason why it is not possible to make an estimation of the product lifespan. Unfortunately, this is also the reason why we can not make warranties concerning the durability of our profiles.

#### There are multiple ways to expand the lifetime of the product:

- ✓ Avoid Contamination in the area of the grooved hose
- ✓ Do not drive foreign objects into the profile
- ✓ Avoid jerky braking or acceleration movements in the longitudinal direction of the tread
- ✓ Avoid turning or steering movements of a wheel on the profile

## FURTHER OPTIONS

The following measures can be taken to minimise the subsidence of the profiles when driven over by individual traffic (forklift trucks, vehicles with high axle loads):



#### QUARTZ SAND FILLING

Fill the cavities with quartz sand (for the inner profile, the groove area must not be filled).

#### PLATE EDGE SUPPORT










Support of the profiles above the fixings by means of sheet metal edgings.

DRAWING	DESCRIPTION	RAIL	LENGTH	MOAT WIDTH	TYPE
	M59068 M59067 E400444	49E1 (S49)	≤ 20 m	Groove width	Track Support Plate
	M59066b E150321	49E1 (S49)	≤ 20 m	Groove width	Lindau System
	M59118c	VCT 36	≤ 20 m	Groove width	Lindau System
	M59125	50E5 (S50UNI)	≤ 20 m	58 mm	Lindau System
	M80091 E401030	49E1 (S49)	≤ 20 m	60 mm	Lindau System
	M59090	50E5 (S50UNI)	≤ 20 m	76 mm	Lindau System
	M59059a E141632	49E1 (S49) 54E3 (S54)	≤ 8 m	350 mm	Rail Filler Profiles
	M59075 E400780	49E1 (S49) 54E3 (S54)	≤ 12 m	430 mm	Rail Filler Profiles
	M80251 E401387	60E1 (UIC60)	≤ 10 m	400 mm	Rail Filler Profiles
	M59146c E141368	54E3 (S54) 54E1 (UIC54)	≤ 10 m	300 mm	Rail Filler Profiles

\* The profiles shown here are only a selection of available geometries. Further profiles are available on request.

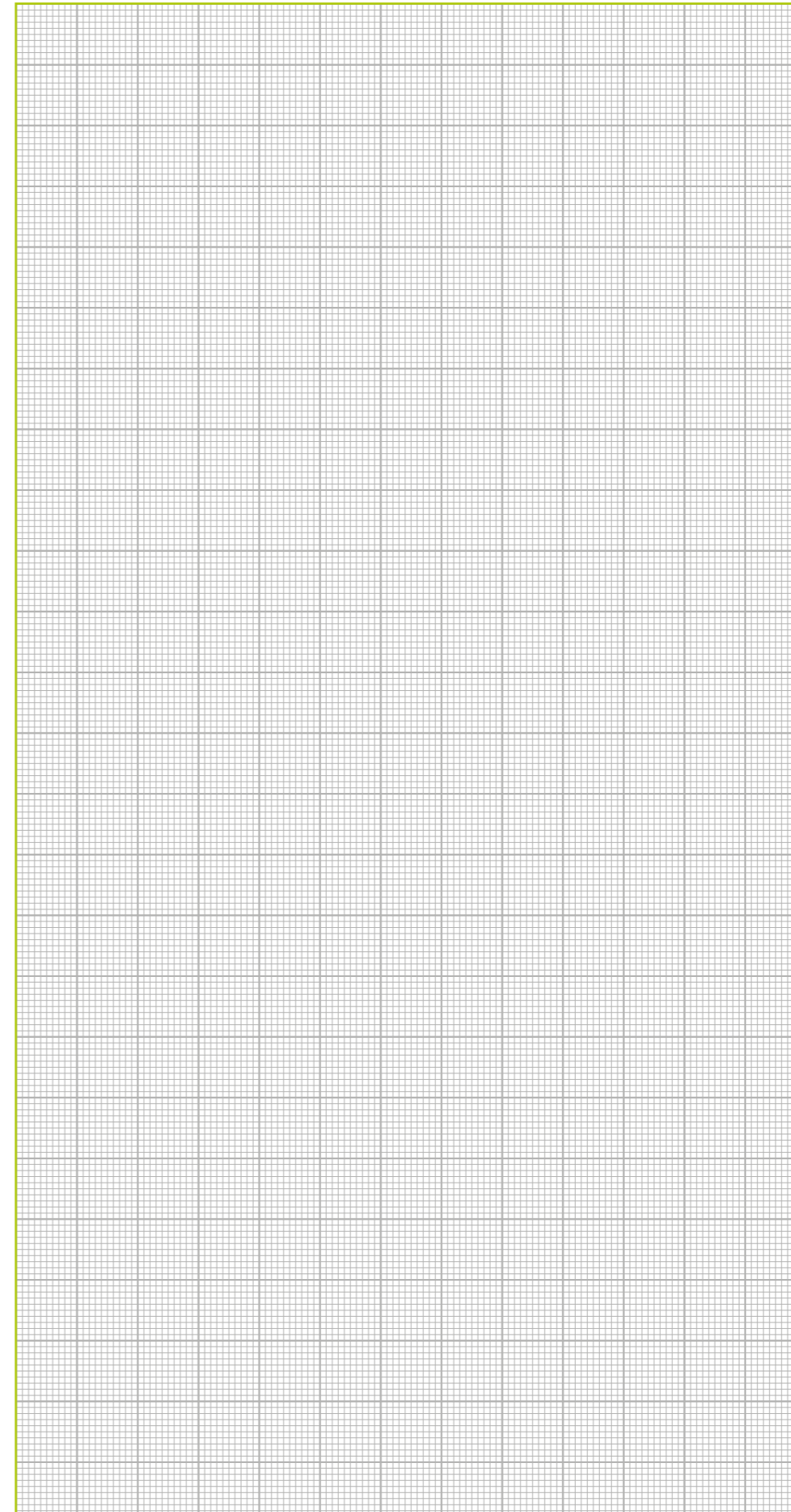
DRAWING	DESCRIPTION	RAIL	LENGTH	MOAT WIDTH	TYPE
	M59532	A75	≤ 10 m	340 mm	Rail Filler Profiles
	M59208 E142209	MRS 87A	≤ 10 m	350 mm	Rail Filler Profiles
	M59131	A100	≤ 10 m	400 mm	Rail Filler Profiles
	M59520 E150049	A120	≤ 10 m	430 mm	Rail Filler Profiles
	M80351 E401887	57R1 (Ph37)	≤ 20 m	Groove width	Safety Profiles
	M80370 E401761	60R2 (Ri60R13, Ri60N) 60R1 (Ri60R10, Ri60)	≤ 20 m	Groove width	Safety Profiles
	M80280 E401634	51R1 (Ri59)	≤ 20 m	Groove width	Safety Profiles
	M59553	G53	≤ 20 m	Groove width	Safety Profiles
	M59546 E400099	G70	≤ 20 m	Groove width	Safety Profiles
	M80038 E401075	Type „KRUG“	≤ 20 m	Groove width	Safety Profiles

\* The profiles shown here are only a selection of available geometries. Further profiles are available on request.

DRAWING	DESCRIPTION	RAIL	LENGTH	MOAT WIDTH	TYPE
	M21456	49E1	≤ 20 m	65 mm	Safety Profiles
	M59091 E400838	49E1 (S49)	≤ 20 m	60 mm	Safety Profiles
	M38813 E402035	60E1 (UIC60)	≤ 20 m	55 mm	Safety Profiles
	M38804 E401467	60E1 (UIC60)	≤ 20 m	55 mm	Safety Profiles
	M38810 E401224	49E1 (S49)	≤ 20 m	75 mm	Safety Profiles
	M59171 E135562	41E1 (S41-10)	≤ 20 m	65 mm	Safety Profiles
	M59570	41E1 (S41-10)	≤ 20 m	66 mm	Safety Profiles
	M80353 E401886	A75	≤ 20 m	63 mm	Safety Profiles
	M59106	A75	≤ 20 m	70 mm	Safety Profiles

\* The profiles shown here are only a selection of available geometries. Further profiles are available on request.

## PLANNING ASSISTANCE



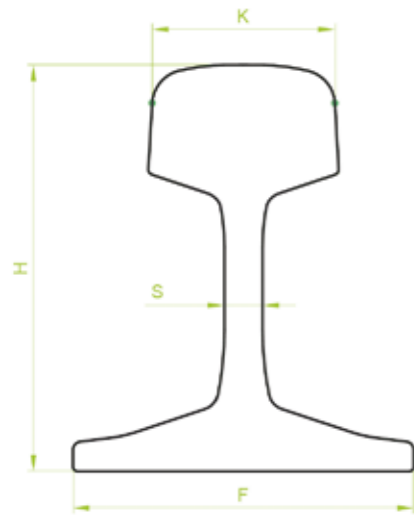
Here is space to outline your assembly situation.

To ensure a fast and smooth processing of your needs, the following information is helpful for our team:

- ✓ Rail type (if unknown, use the tables with the main dimensions for grooved and vignol rails on the next page).
- ✓ Measures of the width and depth of the groove
- ✓ Planned usage or trafficking of the rails

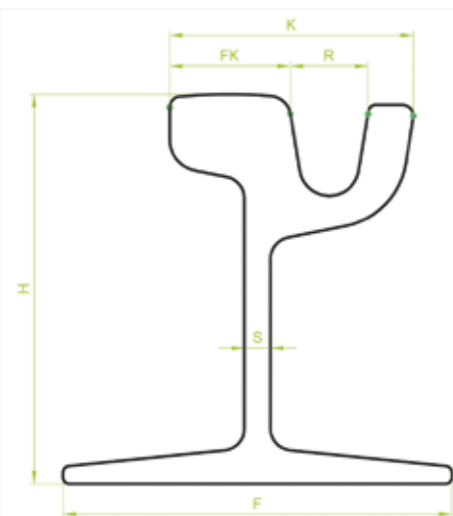
For an optimal preparation feel free to use the space to outline your assembly situation.

## MAIN DIMENSIONS OF THE VIGNOL RAILS



PROFILE	H (mm)	K (mm)	F (mm)	S (mm)
33E1(S33)	134	58	105	11
35E1 (Xa)	125	58	110	12
36E3(VST36)	130	60	100	12
39E1m	133,35	63,9	117,47	13,10
39E1(BS80A)	133,35	63,5	117,47	13,10
40E1 (S41-14)	138	67	125	12
41E1(S41-10)	138	67	125	12
PTC41	137,6	63,5	127	13,1
45E1 (BS90A)	142,88	66,67	127	13,98
45E2 (DSB45)	141	69,3	126	13,76
46E1 (SBB I)	145	65	125	14
46E2 (U33)	145	62	134	15
46E3 (NP46)	142	73,72	120	14
95RBH	145,26	69,85	69,85	19,05
SAR48	150	68	127	14
S48-U	149	67	115	14
49E5	149	67	125	14
49E1(S49)	149	67	125	14
50E2 (EB50T)	151	72	140	15
50E3 (BV50)	155	70	133	14
50E4(UIC50)	152	70	125	15
50E6 (U50)	153	65	140	15,5
SAR51	150	68	127	19
R50	152	70,24	132	16
54E2(UIC54E)	161	67	125	16
54E2KA700	161	67	125	16
54E4	154	67	125	16
54E5 (54E1AHC)	159	70,2	140	16
54E3 (S54)	154	67	125	16
54E1 (UIC54)	159	70	140	16
56E1 (BS113A)	158,75	69,85	140	20
115RE	168,28	68	139,7	15,88
SAR57	165	71,12	140	16
60E2	172	72	150	16,5
60E1 (UIC60)	172	72	150	16,5
60E1KA700	172	72	150	16,5
AS60	170	70	146	16,5
CHN60 (VRC60 / S60)	176	70,8	150	16,5
JIS60	174	63,62	145	16,5
R65	180	73	150	18
136BHP	185,74	73,46	152,4	17,46
136RE-8	185,74	73,78	152,4	17,46
AREA136RE	185,74	73,77	152,4	17,46
AREA136REIH	185,74	73,41	152,4	17,46
136RE14	185,74	73,71	152,4	17,46
AREA141AB	188,91	74,32	152,4	17,46
TN70	190,5	70	110	14
71E2	172	72	150	25

## MAIN DIMENSIONS OF THE GROOVED RAILS



PROFILE	H (mm)	K (mm)	FK (mm)	R (mm)	F (mm)	S (mm)
51R1 (RI52R13; RI52)	130	113	55,83	42,35	150	12
53R1(RI53R13; RI53)	130	113	55,83	36,35	150	12
RI53-10	130	113	56	36	150	12
54G2	152,5	116,6	55,91	41,55	141,5	13
55G1 (35GP)	152,5	111,82	56,23	35,94	141,5	13
55G2(41GP)	152,5	116,9	56,23	40,94	141,5	13
55NK	150	113	55,83	36,17	150	12
57R1 (Ph37)	182	127	51,92	60,45	150	11
57A	130	113,83	56	30	150	12
59R2 (RI59R13; RI59N)	180	113	55,83	42,35	180	12
59R1 (RI59R10; RI59)	180	113	56	42	180	12
60R3 (RI210/95+80)	210	112	58,4	33,14	175	11,5
60R2(RI60R13; RI60N)	180	113	55,83	36,35	180	12
60R1 (RI60R10; RI60)	180	113	56	36	180	12
RI60NL	180	113	55,83	36,35	180	12
62R2(NP4aS)	180	116	55,86	33,98	180	12
62R1(NP4aM)	180	116	56,03	34,44	180	12
63R1 (RI210/95+80a)	210	122	58,4	33,14	175	11,5
67R1	180	135	60,03	58,66	180	13
73C1 (VKRI60)	180	113,1	-	-	180	12
75C1 (BA75)	180	113	56	36	180	20
105C1 (D180/105)	180	130	-	-	180	32
310C1 (BL180/260)	184	260	-	-	260	162



More than fifty years of market experience provide the foundation for our range of high quality sealing solutions to meet every challenge in your project.

## WE ARE EXPERTS IN THE FIELD OF PROFILES AND SEALING.

It all began more than 200 years ago with the production of fire hoses. Combined with product diversification, our expertise in elastomer profiles and know-how in processing various types of rubber have grown over the past 50 years.

Through various stations and ownership relationships starting with PHOENIX AG, ContiTech AG, later PHOENIX Dichtungstechnik GmbH and finally DÄTWYLER Sealing Technologies Deutschland GmbH, our organization developed into an internationally operating company. In 2018 we received the Thuringian Innovation Award in the

“Tradition & Future” category for our product “Bicycle safe track”, we also have 43 patents.

With the management buy-out in May 2020, SEALABLE Solutions GmbH now operates as a Thuringian company with a global network.

Our premise is not only global sales; above all, trusting and close contact with our customers and partners is our top priority. This means that our partnerships are sustainable and often include an entire product life cycle.

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