

**WEAR-RESISTANT**

**RELIABLE**

**SMOOTHNESS**

**VERSATILE**

**ABRASION RESISTANT**

# **Wheels and Castors**

**HIGHLY STRESSABLE**

**POWERFUL**

**CUSTOMIZED**

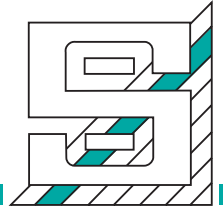
**PERFORMANCE**

**CONVINCING**

**RESISTANT**

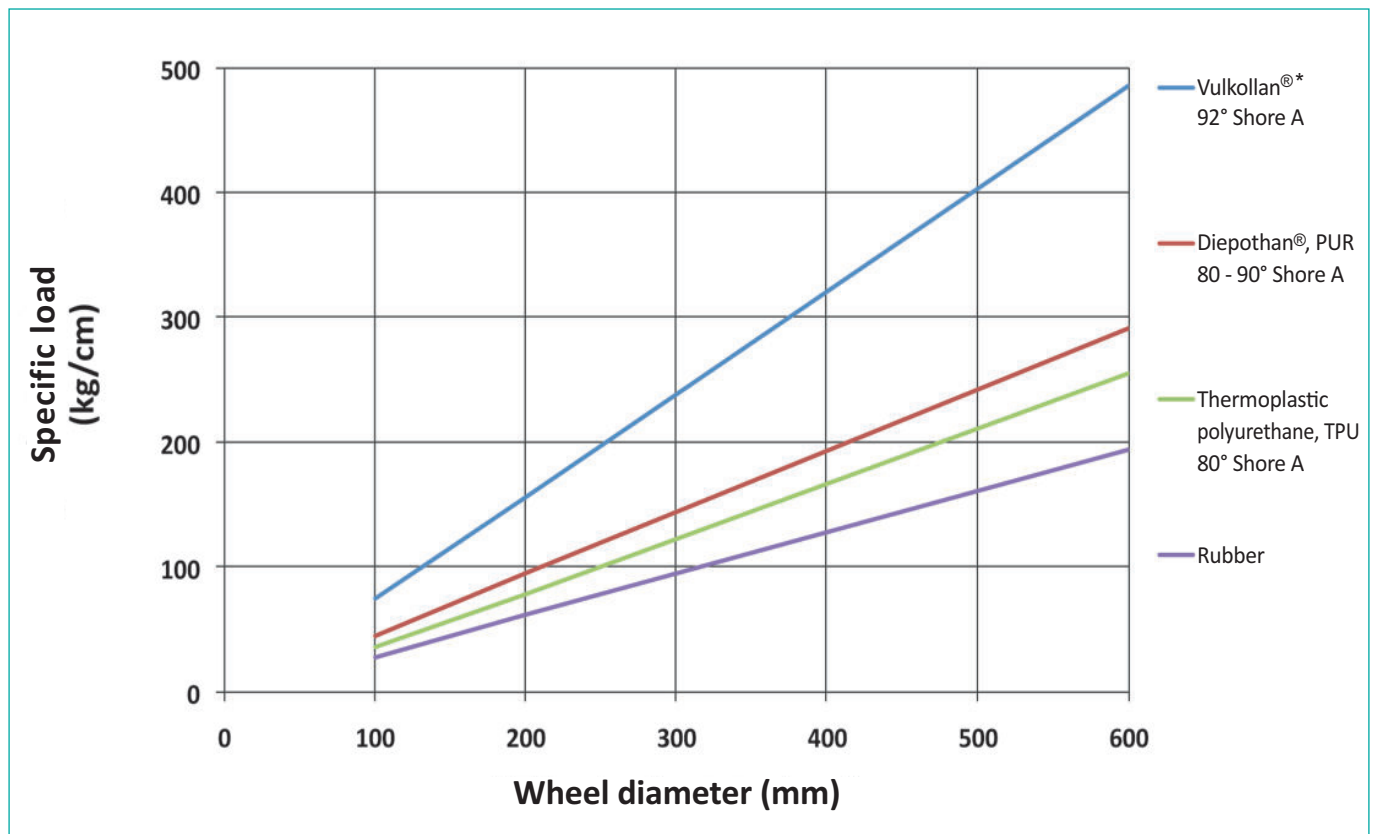
**LOAD CAPACITY**

# Wheels and castors



## 1. Permissible load

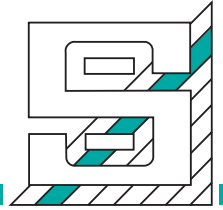
A reliable method for calculating the permissible load capacity for coated wheels does not exist yet. The following data have been empirically determined by tests and have proven themselves for an approximate calculation of the roller load capacity. The measurements were carried out with a selection of Shore hardnesses used in practice. The specific load refers to the width of the coating.



Notice:

For guide castors, the specific load must be lower. The diagram values must be multiplied by a factor of 0.625.

Maximum speed  $V_{max} = 1.7 \text{ m/s} = 6.0 \text{ km/h} = 3.7 \text{ mph} = 5.5 \text{ fps}$



## 2. Material selection

Our materials Vulkollan® and Diepothan® are processed by hot casting. Compared to cold casting systems, our materials are characterized by a consistently high value level. These high-quality systems require a subsequent heat treatment, which is indispensable for the complete achievement of the good mechanical properties.

In conveyor technology, as well as in general mechanical engineering, a coating of Vulkollan® is primarily used for drive and load wheels. A long service life, high loads and a high impact elasticity are the outstanding attributes here. For these reasons, coatings made of Vulkollan® are also frequently used in many other industries. This all-round material also combines a high abrasion and tear propagation resistance with a high dynamic load capacity and thus a high mechanical wear resistance.



Our Diepothan® serves as a counterpart to Vulkollan®. This material can be specially adapted to the field of application and the application itself. High grip and low damping for drive rollers, hydrolysis stability for use in areas with high humidity or improved damping to minimize running noise are examples of a special adjustment of the material.



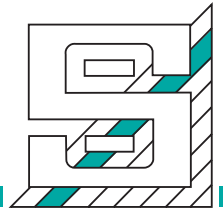
Coatings with our foamed materials Vulkocell® and Diepocell® are also possible. Here the advantages of the high damping with Diepocell® or the advantages of the good spring properties with Vulkocell® can be used in special applications. With both materials, high volume compressibility combined with high deformability can cover very special application areas. The lower compression hardness compared to solid materials, which is also in demand for some very special applications, should also be emphasized.

## 3. Production possibilities

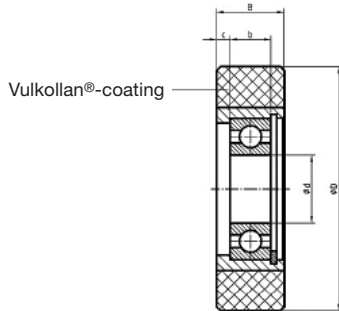
Wheels, castors and rollers can be manufactured according to individual customer specifications and supplied as complete assemblies ready for installation. In addition, the coating of provided wheel and roller bodies is possible. Contouring for special adaptation to applications can be achieved by shaping or mechanical finishing.

Our standard range includes a series of guide rollers with Vulkollan® coating.

# Guide roller - standard range -



Rollers with steel ring, ball bearing, circlip and **Vulkollan®** coating



Important features of the rollers:

- low sliding friction
- high structural strength of the material
- excellent running smoothness
- highly stressable
- very good wear and tear and abrasion resistance
- resistant to oils, UV radiation and ozone

Fields of application:

- carrying rollers in the materials handling
- rollers in elevator construction
- guide rollers for cabins and sliding doors
- step rollers for escalators

No.	Ø D (mm)	Ø d (mm)	B (mm)	b (mm)	c (mm)	Bearing-size	Max. loads (kg) bei V = 1,0 m/s	Item-number
1	21,3	5	8	5	1,5	625-2RS	15	701554194 *
2	32	8	12	7	2,5	608-ZZ	30	707513590
3	40	10	15	8	3,5	6000-ZZ	55	701700590
4	50	10	15	8	3,5	6000-ZZ	70	701701590
5	55	10	15	8	3,5	6000-ZZ	75	707202590
6	50	17	18	10	4	6003-ZZ	85	701702590
7	60	17	18	10	4	6003-ZZ	100	701703590
8	60	20	20	12	4	6004-ZZ	110	701704590
9	70	20	16	12	1,25	6004-ZZ	110	701705590
10	70	20	20	12	4	6004-ZZ	130	701706590
11	70	25	25	15	5	6205-ZZ	160	701707590
12	80	25	21	15	2,85	6205-ZZ	160	701708590
13	80	25	25	15	5	6205-ZZ	180	701709590
14	90	25	21	15	2,85	6205-ZZ	170	701710590
15	90	25	25	15	5	6205-ZZ	210	701711590
16	100	25	21	15	2,85	6205-ZZ	190	701712590
17	100	25	25	15	5	6205-ZZ	230	701713590
18	100	25	30	15	7,5	6205-ZZ	270	702567590
19	100	25	40	15	12,5	6205-ZZ	360	702568590
20	110	25	20	12	4	6204-ZZ	200	701714590
21	110	25	21	15	2,85	6205-ZZ	210	701715590
22	110	25	25	15	5	6205-ZZ	250	701716590
23	110	25	30	15	7,5	6205-ZZ	300	701717590
24	120	25	21	15	2,85	6205-ZZ	230	701718590
25	120	25	25	15	5	6205-ZZ	270	701719590
26	120	25	30	15	7,5	6205-ZZ	330	701720590
27	125	25	21	15	2,85	6205-ZZ	240	701721590
28	125	25	25	15	5	6205-ZZ	290	701722590
29	125	25	30	15	7,5	6205-ZZ	340	701723590
30	125	25	40	15	12,5	6205-ZZ	450	702570590
31	150	25	40	15	12,5	6205-ZZ	540	701740590
32	180	25	30	15	7,5	6205-ZZ	490	702602590

We reserve the right to make technical changes!

\* ATTENTION! Coating of this roller is made of TPU.