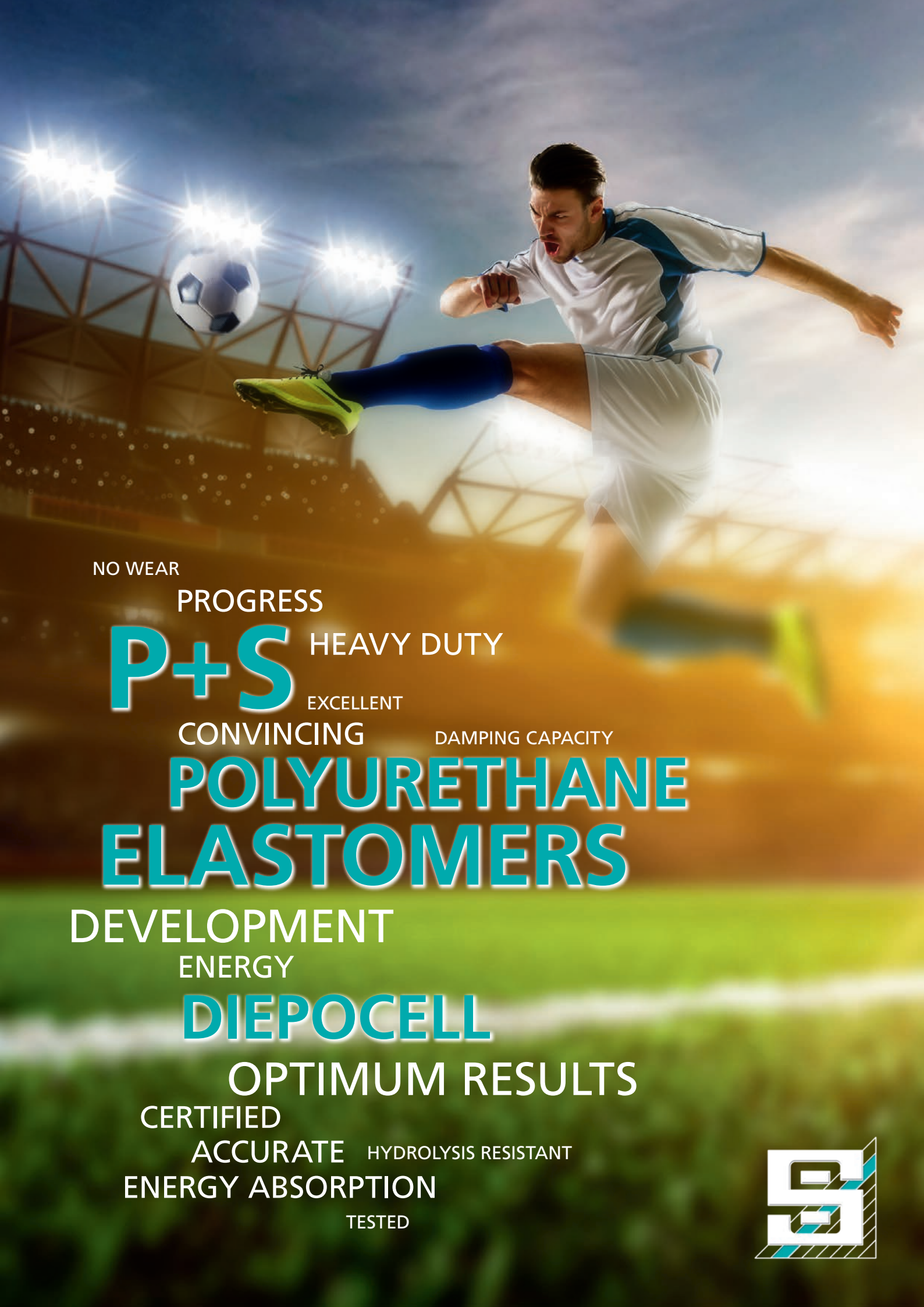

NO WEAR
PROGRESS
P+S
HEAVY DUTY
EXCELLENT
CONVINCING
DAMPING CAPACITY
POLYURETHANE
ELASTOMERS
DEVELOPMENT
ENERGY
DIEPOCELL
OPTIMUM RESULTS
CERTIFIED
ACCURATE
HYDROLYSIS RESISTANT
ENERGY ABSORPTION
TESTED

THE IDEAL SOLUTION

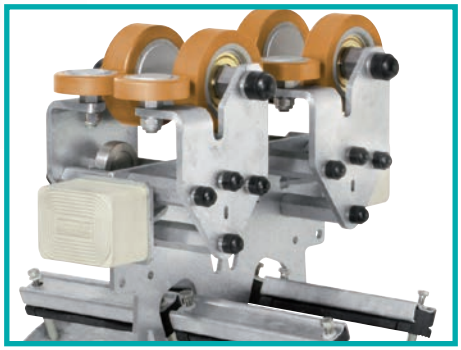
DIEPOCELL®

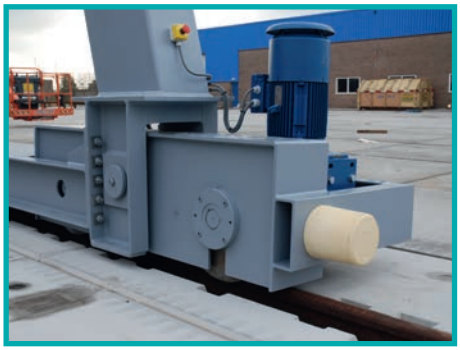
FOR OPTIMUM DAMPING RESULTS

Diepocell is a cellular polyurethane elastomer and is characterized by a fairly similar feature range as Vulkocell. In addition, the material is, however, for special applications predestined: PUR systems from Diepocell prove themselves in a convincing manner, if less, the dynamic properties of a component are the focus, but a superb damping characteristic is essential. Use of the successful P + S product Diepocell preferably in the elevator and crane construction as well as in general mechanical engineering, especially as stop dampers and emergency buffer. They impress with an optimized damping capacity, higher load ranges and great energy absorption. Precise material tests allow for the development of certified components in hydrolysis resistant execution, as for use in tropical climate.

At a glance: the profile of properties

- excellent damping effect
- maximum energy absorption
- constant compression behaviour
- high volume compressibility at low transverse strain
- good resistance to mineral oils and greases
- good resistance to ozone, UV radiation and high-energy radiation
- temperature range of -30°C to + 80°C
- hydrolysis resistant
- special qualities approved according to LFGB (Food, Commodities and Feed Code)





THE IDEAL SOLUTION

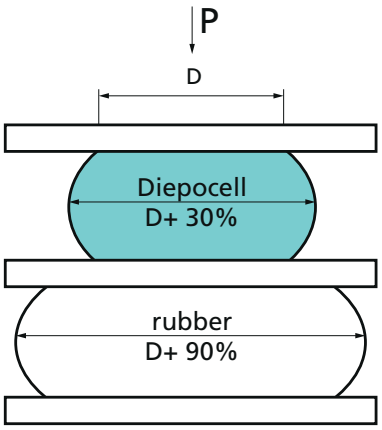
DIEPOCELL®

PRONOUNCED LOW TRANSVERSE STRAIN

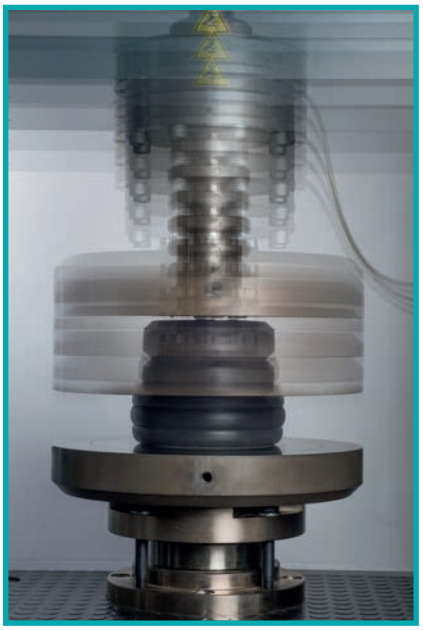
Applications overview

- crane and plant construction
- material handling
- road construction machines
- lift industry
- general engineering
- leisure sports and amusement parks
- construction machines
- automotive industry and special vehicles
- lifting equipment
- furniture industry
- agricultural industry

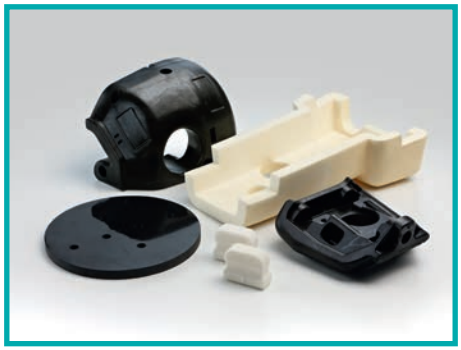
As well as Vulkocell also Diepocell is available in a density range from 350 to 650 kg / m^3 and also characterized by a maximum deformation of 90% with a simultaneous minimal transverse strain. Based on the facts, small installation spaces and a small installation surface can be achieved.



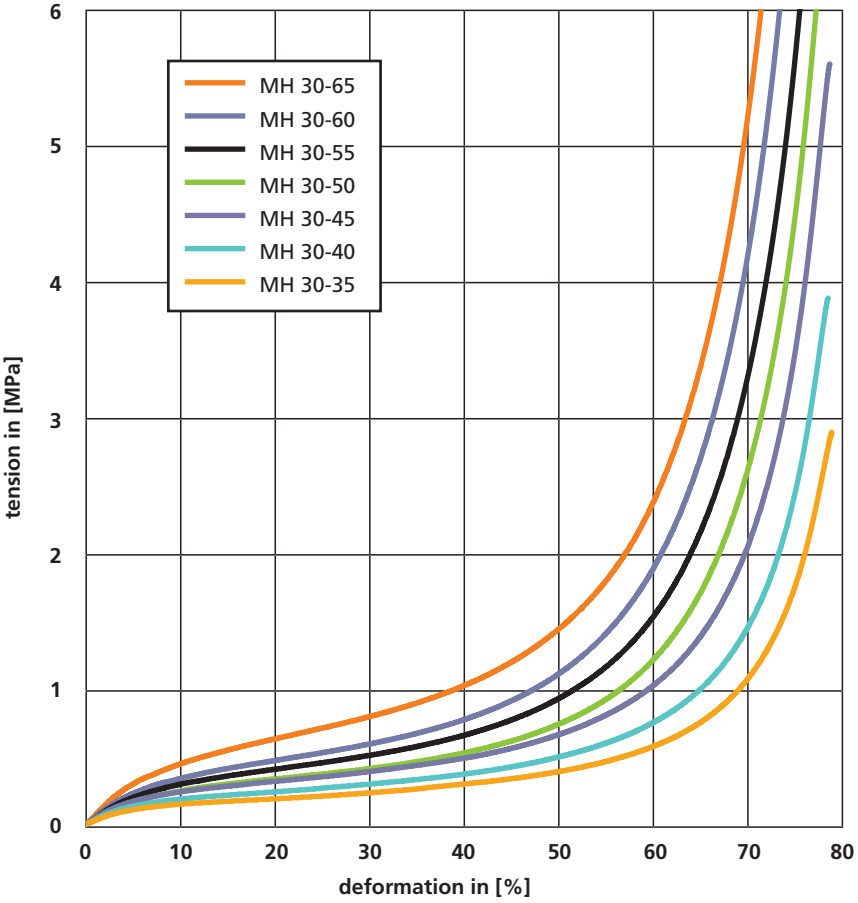
compression between two plates



The advantage of volume compressibility is particularly well illustrated in a comparison with a compact elastic material with same stiffness (in the initial region) like rubber. Another advantage compared to rubber, or compact polyurethanes is the substantial weight reduction of the components, so that a cost optimization is also possible here.



compression stress diagram Diepocell MH 30-...



Pressure-strain diagram of Diepocell, considering a spring with Ø 50mm x height 50mm, strain rate 100mm/min.

physical properties and data

test	test specification DIN ISO	units	MH 30-35	MH 30-40	MH 30-45	MH 30-50	MH 30-55	MH 30-60	MH 30-65
density	DIN 53420 ISO 845	g/cm³	0,35	0,4	0,45	0,5	0,55	0,6	0,65
tensile strength	DIN 53571 ISO 1798	N/mm²	3,2	4	4,5	5	6,5	8,5	9
elongation at break	DIN 53571 ISO 1798	%	450	490	525	550	560	570	575
tear propagation resistance	DIN 53515 ISO 34	kN/m	14	16	18	20	21	23	24
rebound resilience	DIN 53512	%	50	50	50	50	50	50	50
compression set*	DIN 53572 ISO 1856	%	3,5	4	4	4,5	5	5	6
compression set**	DIN 53572 ISO 1856	%	9	11	13	14	14,5	15	17

* 22°C 70 hours ** 70°C 24 hours

medium compression stress

density kg/m³	compression strength (N/mm²) at a strain of:					
	20%	30%	40%	50%	60%	70%
350	0,20	0,24	0,31	0,40	0,59	1,10
400	0,25	0,31	0,38	0,51	0,77	1,49
450	0,33	0,39	0,49	0,67	1,04	2,08
500	0,36	0,44	0,57	0,79	1,30	2,82
550	0,42	0,52	0,67	0,95	1,57	3,41
600	0,48	0,60	0,78	1,23	1,92	4,30
650	0,63	0,80	1,01	1,45	2,41	5,34

Reserve technical changes!

Product overview

- crane stop buffers
- damping rings
- buffer elements
- safety & emergency buffers
- stops
- seals
- insulation elements
- bar pads
- feed rollers
- roller coatings
- crash protection
- soundproofing
- tapered rollers
- as well as plates and blanks for individual further processing