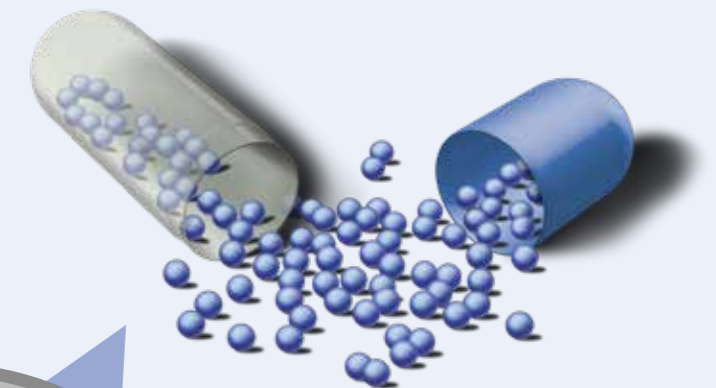


SUGAR SPHERES

... carrier for your sustained-release formulation



Different applications:



Filled by our customers into capsules



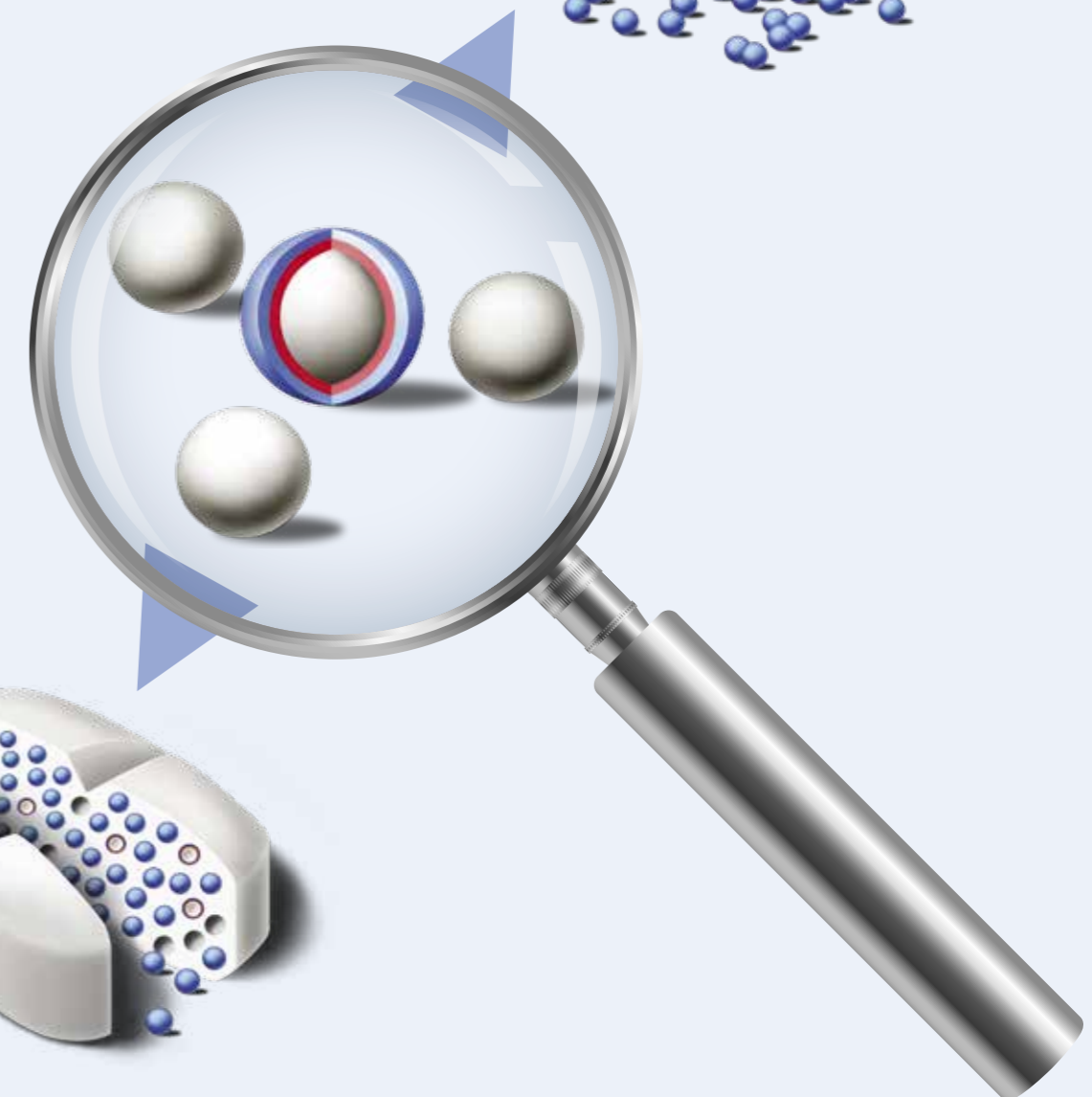
compressed to tablets

In addition to sugar spheres we also produce:
globuli sacchari

item-no.	Category	globuli/g
08710	1	470 - 530
08720	2	220 - 280
08730	3	110 - 130
08740	4	70 - 90
08750	5	40 - 50
08760	6	22 - 28
08770	7	appr. 10
08780	8	appr. 5
08790	9	appr. 3
08795	10	appr. 2

- Sugar-free spheres (xylitol-pellets)
- Nutritional supplements on basis of our spheres (e.g. Vitamin C Pellets).

Please ask us...



Hanns G. Werner GmbH + Co. KG

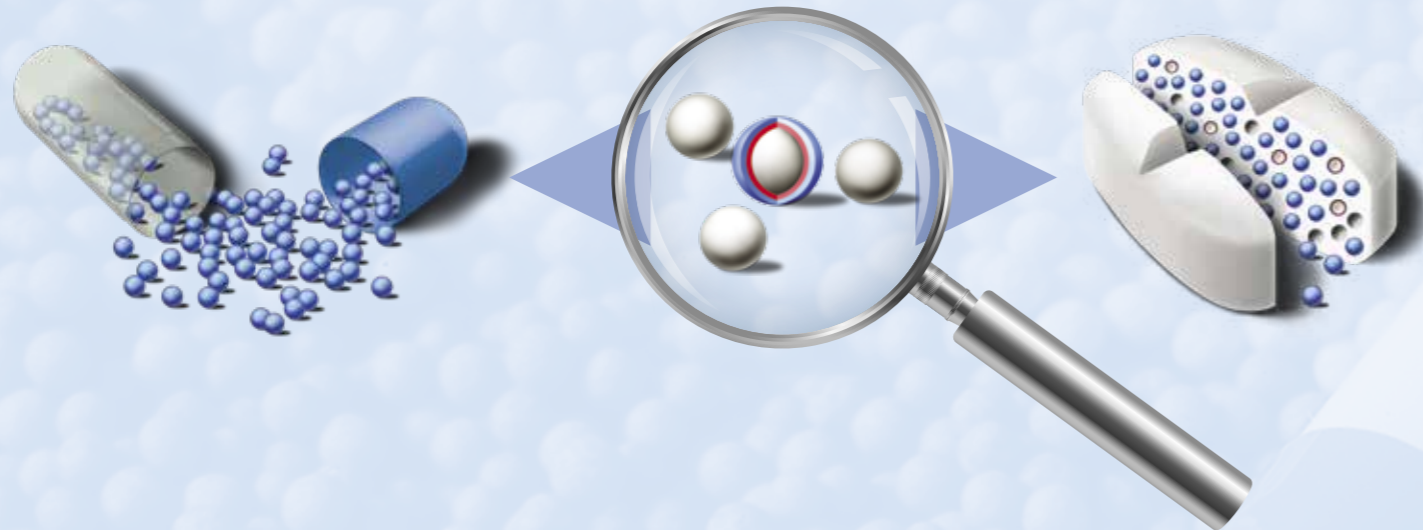
Hafenstraße 9 · 25436 Tornesch · Germany · Phone: +49(0)4122 / 95760 · sales@pharm-a-spheres.com

WWW.PHARM-A-SPHERES.COM

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pharm-a-spheres™

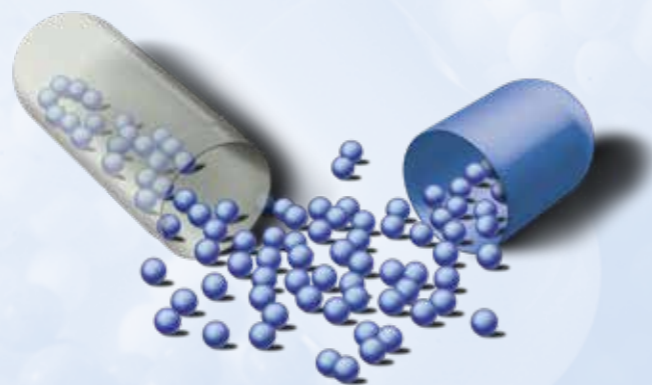
pharm-a-spheres™



Sugar spheres, also called neutral pellets or nonpareil seeds, are a non-active, spherical pharmaceutical excipient. They consist of indifferent ingredients. They are used as cores in the manufacturing of sustained-release pellet preparations.

The pharm-a-spheres™ sugar spheres conform to all international pharmacopeias as EP, USP/NF, CP and JPE according to the respective monographs. pharm-a-spheres™ are made with natural European, GMO-free ingredients: sucrose and (maize) corn starch.

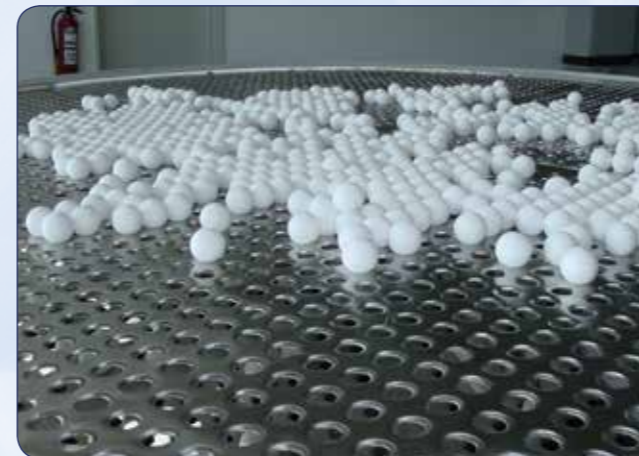
Due to our unique manufacturing process the pharm-a-spheres™ sugar spheres have the following advantages: High degree of sphericity, high mechanical stability (no attrition, low friability) and a non-porous surface.



Production and testing are carried-out at a high level in conformance to an ISO 9001 quality management system and to the IPEC (International Pharmaceutical Excipients Council) GMP guide. An FDA drug master file is available.



A sophisticated combination of technological capabilities and analytical skills allows us to offer tailor-made, reproducible particle size distributions (PSD). The pharm-a-spheres™ sugar spheres are available in the full range from 90 to 500 microns (microspheres) and from 0,5 to 2 millimeters (neutral pellets).



More than 45 years of experience in the manufacture of sugar spheres gives customers quality and delivery assurance. There is various knowledge in additional parameter testing and application support will be provided after demand.

All test results mentioned in the certificates of analysis are done in our in-house laboratory. State of the art equipment and excellent employees guarantee conformity to our standards.

For further information please visit the client area of our web-site: www.pharm-a-spheres.com.

Neutral Pellets (sugar spheres)

The available standard sizes are:

item-no.	mesh ASTM	diameter in µm
08001	170 - 100	90 - 150
08013	100 - 80	150 - 180
08023	80 - 70	180 - 212
08025	80 - 60	180 - 250
08033	70 - 60	212 - 250
08035	70 - 50	212 - 300
08043	60 - 50	250 - 300
08050	50 - 45	300 - 355
08051	60 - 45	250 - 355
08052	50 - 40	300 - 425
08053	60 - 40	250 - 425
08062	45 - 35	355 - 500
08063	45 - 40	355 - 425
08065	50 - 35	300 - 500
08073	40 - 35	425 - 500
08130	35 - 30	500 - 600
08150	35 - 25	500 - 710
08230	30 - 25	600 - 710
08250	30 - 20	600 - 850
08330	25 - 20	710 - 850
08350	25 - 18	710 - 1,000
08430	20 - 18	850 - 1,000
08450	20 - 16	850 - 1,180
08530	18 - 16	1,000 - 1,180
08537	20 - 16	850 - 1,180
08630	16 - 14	1,180 - 1,400
08643	16 - 12	1,180 - 1,700
08653	14 - 12	1,400 - 1,700
08663	12 - 10	1,700 - 2,000

This is an easy converter from mesh to micron and vice versa – to use as a bookmark especially made for specialists in production and quality control.