



## Iron Powder for Friction Applications

### Putting the brakes on noise, cost and wear

For braking applications, knowledge and materials make the difference between squawks and squeals and smooth stopping. Iron powder offers an excellent combination of durability and cost in semi-metallic brake pads and sintered friction formulations.

Höganäs provides the world's most comprehensive range of iron powders for friction applications. With low apparent density our powders enable a reduction of brake weight and total material usage. Moreover, their high internal porosity and large surface area provide improved brake surfaces and wear properties.

With our products, know-how and services, we can provide better braking power and improve quality, efficiency and profitability.

**For more information, please contact your local sales representative.**

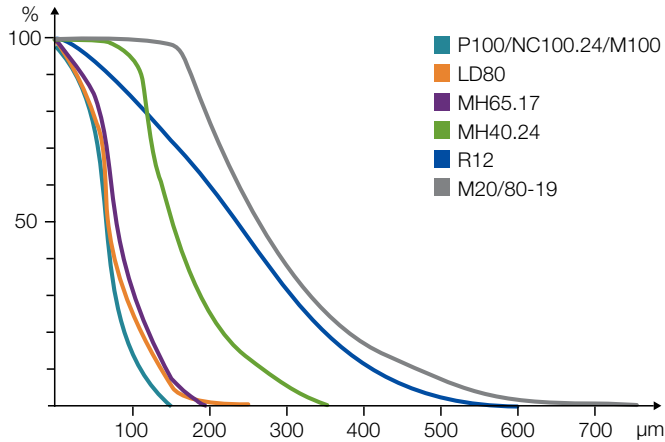
### Main product benefits:

- Lower brake weight and reduction of material usage
- Improved brake surfaces and excellent pad and rotor wear properties
- Noise minimisation
- Consistent powders ensure uniform products

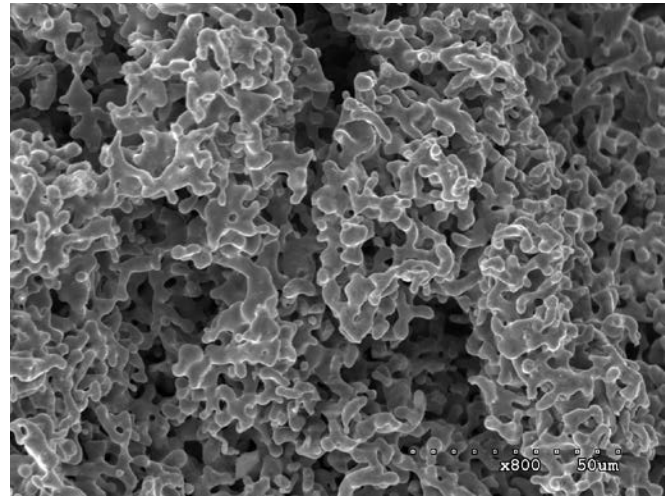


# Basic iron powder range for friction applications

## Product comparisons



Typical cumulative particle size distribution



Particle morphology for hydrogen reduced R-12

Several factors determine the right powder for your friction application, including particle size distribution, apparent density (AD) and hardness (chemical composition and treatment).

Another important factor is morphology which is a direct result of the manufacturing method. Our products are manufactured by either hydrogen reduction, carbon reduction or atomisation.

## Typical values

Products	AD (g/cm <sup>3</sup> )	Specific surface BET (m <sup>2</sup> /kg)	Particle size (%)			Chemical composition	
			+60 mesh/ 250 μm	+100 mesh/ 150 μm	-325 mesh/ 45 μm	H <sub>2</sub> -loss (%)	C (%)
R12	1.4	225	46	79	3	1.8	0.02
M20/80-19	1.6	140	55	97	0	0.6	0.21
MH65.17	1.8	100	0	5	16	0.17	0.01
LD80	2.0	200	0	3	28	0.9	0.02
P100	2.4	175	0	1	30	1.0	0.02
MH40.24	2.5	90	15	60	0	0.15	0.02
NC100.24	2.4	130	0	2	17	0.19	0.01
M100	2.4	130	0	2	20	0.82	0.21