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Product Information HPW Balancing Compound 505

Veitshöchheim, 21.01.2015



Introduction

Quick Overview

What is balancing compound?

- Addition to truck product range
- Designed mainly for trucks
- Compared to balancing weights, the product is applied on the inside of the wheel
- Reduces vibrations
- Works only when wheel is spinning

Reasons for balancing compound

- Time and cost savings for balancing
- Easy handling
- Can be used without balancing machine
- Enables balancing for highway service
- Dampens wheel vibrations
- No rebalancing required

Kind of balancing compounds

- Balancing powder
- Balancing liquid
- Ceramic pearls
- Glas pearls
- ...



Different package sizes

The package size depends on the tyre size:



Packaging & Installation methods

- Most common method (>90%) is throwing self dissolving bags into the tire, during mounting. Bag breaks open and powder spills when wheel starts rotating.
- Bags come in different sizes and the amount is chosen according to application guides, by tire size.
- Offered sizes vary, measured in grams or ounces.
- In Europe more and more low cost product is offered in buckets, similar to paste.
- Installation by injecting compound through valve stem is not common, very time consuming.
- End consumer products, especially for motorcycles, are injected with small plastic bottles, due to the lack of mounting equipment. Too complicated for professional / HD use.



Self dissolving bags



Product in bucket



End consumer injection bottles



Injection through valve

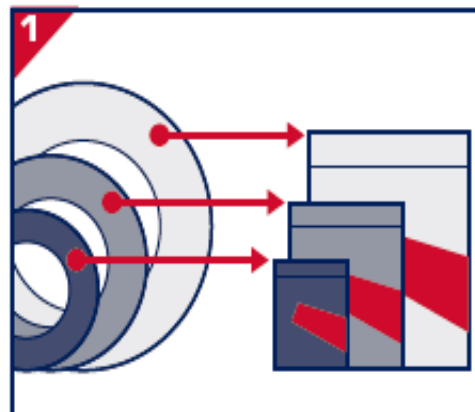
Bag sizes

The amount of balancing compound used, depends on the tire size.

- For easy and quick selection of the right amount of weight for a tire, our compound comes in 5 different sizes from XS to XL.
- In a separate, printed and downloadable application chart the most common truck tire sizes are cross referenced to the right amount of weight. The application chart is available in English only.
- For large amount of compound several smaller bags can be combined.



A	B	HPW 505
31/10,5	15	XS
225/75	16	XS
245/75	16	XS
265/75	16	XS



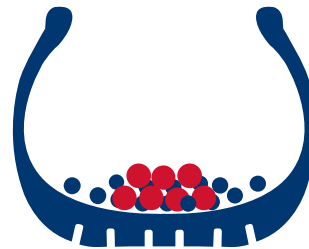
Type 505 – Balancing compound

How it works

In a running tire the balancing compound is dispersed along the tire walls due to the centrifugal force. With increasing speed, imbalance of the wheel assembly (heavy spot) will cause vibrations like bouncing and wobbling. At the same time the higher speed will also cause the centrifugal force to disperse the material in the tire and automatically push the compound opposite to the heavy spot, compensating the vibrations. As the compound can flow freely in the tire, it will constantly adjust to shifts in forces caused by changed imbalances, speeds and road conditions, delivering a smooth ride.

What is the “fusion technology”

The secret of the innovative Hofmann Power Weight Fusion Technology is the different size materials used in the balancing compound itself. The larger red kernels concentrate in the center of the tire and dampen the static imbalance. The smaller blue kernels shift more to the outer edges of the concentration and compensate wobbling which is caused by dynamic imbalance. The result is a smooth ride for the complete tire life.



Features and benefits

Features

- Fusion Technology – The intelligent balancing compound
- Integrated and easy to remove valve cap and valve core
- Easy to open bag through perforation
- Self-explanatory assembly instructions (graphics)
- Garage-optimized storage box (dispenser)
- Application chart

Benefits

- Quick and easy balancing
- Increased fuel efficiency
- Prolonged tire life
- More driving comfort
- TPMS safe
- Environmentally friendly
- Self-adjusting (one time balancing)



Packaging and Material

The premium solution, from box to product

Master Box

- 8/12/16 bags/box



- Small footprint
- Top and side dispensing
- Recloseable option
- High quality print

Bag

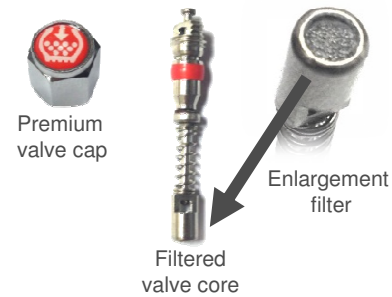
- XS –XL, 5 sizes



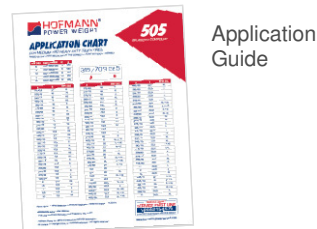
- Easy to open bag
- Instruction via pictograms
- High quality print

Accessoires

- In every bag:



- Also available:



- Premium accessories
- In every bag
- Support material

Material

- Mineral Compound
- 2 color & size, fusion technology



- Natural, mineral compound
- Especially coated
- Premium look, 2 color

Upsell potential

Opportunity for commercial tire service specialists



Trucks are balanced for:

1. Flat tyres
2. Tyre renewal
3. Strong vibrations while driving

- Most commercial vehicles are only balanced on the steer axle (first axle).
- Trailer tires are rarely rotated or rebalanced, often due to high cost of labor
- **While the steer axle has the biggest impact into driver comfort, about 85% of the fuel economy related to tires come from the other axles and the trailer.***
- Balancing compound with lifetime balance and low labor costs per balance, allows for extension of the balancing to the other axles and trailers, increasing fuel economy and decreasing wear.
- **THIS IS A MASSIVE UPSELL POTENTIAL FOR SHOPS WITH 4-5 TIMES THE SOLD BALANCES!**

*Source: Bridgestone - Tire and Truck Fuel Economy

Balancing Compound VS Wheel Weights

Wheel Weights

- Work for all kind of cars and driving characteristics,
- Works at all speeds
- Very accurate balancing
- Perfectly balances the wheel and tire assembly
- Check and rebalance every time tires are rotated or changed.
- 100% check every time, through wheel balancer control spin-up (“balance to zero”)
- Best value per balance
- Balancing machine required
- Still the main method for balancing
- Used by most HD vehicle manufacturers, wheel weight is the original part

- **Highest accuracy and control**
- **Best value per balance**
- **Still standard method used on commercial vehicles**

Balancing Compound

- Best for constant speeds, not recommended for passenger cars, stop and go traffic, delivery vehicles...
- Does not work at slow or very fast speeds or standing still
- Only vibration dampening, not so accurate balance
- Lifetime application, no rebalancing necessary
- Dynamically adjusts to changing conditions & wear and can dampen vibrations from other steer and axle components.
- Wrong applications (too few, too much weight) can only be detected at driving speed
- Universal, not depending on rim flange design
- Best value over lifetime, when accuracy is secondary
- No balancing machine required

- **Only vibration dampening, only for certain applications**
- **Best value over lifetime of tire**
- **No balancer required**

Pricing

Five different bag sizes will be offered:

Part Number	Description	Gross Price per bag	Gross Price per packaging	Packaging Quantity
0401-5505-120	505 Balancing compound XS, 120g/4oz	4,20 €	67,20 €	16 bags / box
0401-5505-180	505 Balancing compound S, 180g/6oz	6,30 €	100,80 €	16 bags / box
0401-5505-230	505 Balancing compound M, 230g/8oz	8,05 €	96,60 €	12 bags / box
0401-5505-290	505 Balancing compound L, 290g/10oz	10,15 €	81,20 €	8 bags / box
0401-5505-350	505 Balancing compound XL, 350g/12oz	12,25 €	98,00 €	8 bags / box

Logistics Data

material no.	type	description	Size	EAN code	customs tariff no.	standard packaging data					Pallet-Quantity	Pallet Layout
						length	width	height	box qty	weight		
0401-5505-120	505	505 Balancing compound XS, 120g/4oz	120g	4049256099716	2505 1000	193	138	170	16	2,2 kg	160 boxes, 2.560 bags	5 layers, 32 boxes per layer
0401-5505-180	505	505 Balancing compound S, 180g/6oz	180g	4049256099747	2505 1000	193	138	170	16	3,3 kg	160 boxes, 2.560 bags	5 layers, 32 boxes per layer
0401-5505-230	505	505 Balancing compound M, 230g/8oz	230g	4049256099730	2505 1000	193	138	170	12	3,0 kg	160 boxes, 1.920 bags	5 layers, 32 boxes per layer
0401-5505-290	505	505 Balancing compound L, 290g/10oz	290g	4049256099723	2505 1000	193	138	170	8	2,5 kg	160 boxes, 1.280 bags	5 layers, 32 boxes per layer
0401-5505-350	505	505 Balancing compound XL, 350g/12oz	350g	4049256099709	2505 1000	193	138	170	8	3,0 kg	160 boxes, 1.280 bags	5 layers, 32 boxes per layer



Safety and tire testing

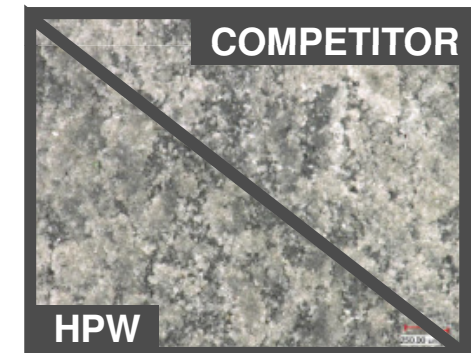
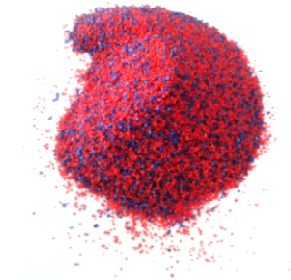
Lab testing

- Material has been tested by the technical university Darmstadt and the SKZ institute in Würzburg ,one of the largest quality assurance institutes of its kind in Europe.
- The material was thoroughly tested against international tire safety standards, with endurance and brake & acceleration tests
- Special focus was directed on the inner tire liner, to find a material that does not cause damage to the tire.

Field testing

- long term field tests with constant evaluation are running till end of 2015 with 5 large logistics and transportation companies in the area.

Result: The balancing compound does not damage the inner tire liner.



Microscopic enlargement of inner tire liner after safety and endurance tire testing