
Heavy-Duty Polyurethane Travel Wheel

Title	Heavy-Duty Polyurethane Travel Wheel
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Address	Anfeng Industrial Park, Dongtai City, Jiangsu, China
Website	https://www.poly-wheels.com/
Email	sale06@kfqizhongji.com

Description

In modern industrial equipment, heavy-duty polyurethane travel wheels are important components for carrying heavy weights and achieving efficient transportation. This article will provide detailed knowledge about polyurethane heavy-duty wheels from the perspectives of the concept, alias, characteristics, and types of heavy-duty equipment.

Concept of heavy-duty polyurethane wheels

Polyurethane heavy-duty wheels refer to industrial wheels designed and manufactured to withstand extremely heavy loads. Such wheels are usually made of high-strength polyurethane materials, combined with carbon steel, cast iron, aluminum alloy, stainless steel, and other wheel cores to form a composite structure. They are used in industrial production, logistics and transportation, heavy equipment movement and other fields.

The design standard of heavy-duty wheels usually takes rated load capacity as the main indicator. The single load-bearing capacity of professional-grade heavy-duty wheels can reach several tons or even tens of tons. Unlike ordinary wheels that only consider the mobile function, heavy-duty wheels have been precisely calculated and rigorously tested in terms of material selection, structural design, and process manufacturing to ensure stable performance under high load conditions.



Features of heavy-duty PU wheels

Ultra-high load-bearing capacity: Using a high-strength polyurethane formula, a single wheel can bear up to 3-20 tons, and special designs can even be higher.

Excellent impact resistance: The molecular structure is tight, which can effectively absorb and disperse impact energy and prevent the wheel body from cracking or deformation.

Excellent wear-resistant and resilient performance: Polyurethane materials have natural wear-resistant and resilient properties, and their service life is 3-5 times that of ordinary rubber wheels.

Good tear resistance: The polyurethane wheel surface is tear-resistant, not easy to peel and debond, and it can maintain a good service life even under high-frequency operation and complex road conditions.

Anti-corrosion and oil resistance: Polyurethane materials have good resistance to most oils and chemicals and are suitable for harsh industrial environments.

Low rolling resistance: The optimized wheel surface design ensures that movement under heavy loads is still relatively labor-saving.

Antistatic and flame-retardant properties: Some professional-grade heavy-duty wheels have these safety features and are suitable for special industrial environments such as clean rooms and coal mines.

Smooth and quiet operation: Compared with metal wheels, polyurethane heavy-duty wheels can effectively reduce operating noise and vibration transmission.

Typical application scenarios of large-tonnage poly-coating wheels

I. Logistics and warehousing fields

1. Forklift and pallet truck driving wheel support wheel
2. Automated three-dimensional warehouse AGV (automatic guided vehicle) driving wheel universal wheel
3. Three-dimensional warehouse stacker guide wheel travel wheel

II. Manufacturing and industrial scenarios

1. Automobile production line transfer equipment conveyor wheel friction wheel
2. Steel and metal processing platform vehicle load wheel walking wheel
3. Bridge gantry crane and shield machine support wheel bearing wheel
4. Coal mine monorail crane wheel driving wheel limit wheel

III. Special environment and industry

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1. Cold chain logistics and cold storage drive wheel driven wheel
 2. Anti-static and low flame retardant wheels for clean rooms in food and pharmaceutical factories



Heavy duty polyurethane rubber-coated wheels have become the first choice for industrial applications due to their excellent performance and durability. They not only improve work efficiency, but also reduce maintenance costs and ensure long-term operation of equipment. If you are looking for efficient and reliable wheel solutions, Philson heavy duty polyurethane coated wheels are undoubtedly your best choice.