



FAQ CHAYA

Wheels.

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Wheels.

CHAYA WHEEL

Wheels have a big impact on your skating performance, and there are more influencing factors than just the size and hardness of a wheel. So let's take a closer look and explain those subtle differences that enable you to find the right wheel for your skating style and surface type.

WHICH WHEEL HARDNESS SHOULD I CHOOSE?

A wheel's hardness refers to polyurethane (PU). This is measured on a durometer scale ranging from 78A up to 103A. The lower the number the softer the wheel and vice versa. Wheel Durometer will affect its durability, shock absorption, and ability to grip on an indoor or outdoor skating surface.

In the following, we will give you information for wheel hardness for certain types of skaters as well as different types of surfaces.

WHICH WHEEL HARDNESS SHOULD I CHOOSE FOR INDOOR / OUTDOOR SKATING?

One of the most common questions refers to the choice of wheels for certain surfaces. The difficulty here is that even on the same surface, different wheels of the same durometer will perform differently due to variables in the overall wheel construction in terms of the hub, the different urethane compounds, and even the skater's weight. In the following, you find an extract of surfaces you will find to help you to get started.

OUTDOOR

Outdoor skating activities include cruising and dance as well as park skating. Depending on your preferences you need to choose different types of wheels in terms of size and hardness.



Wheels.

CRUISING & DANCE: Outdoor surfaces require soft wheels like 78A to 85A hardness that provide a lot of grip. They offer a nice rolling comfort on uneven or rough surfaces you may mainly skate on.

PARK SKATING: See also topic: "Hardness by Type of Skater".

INDOOR

There are different types of indoor floors:

Grippy indoor surfaces include coated wood and traditional skating rinks. The surface provides a lot of grip. Harder wheels with a durometer between 92A and 100A are the best to make sure they don't get stuck on the floor.

Polished concrete or wood can be slick indoor surfaces that don't offer too much grip as the name suggests. The wheels that work best on this type of surface come in a range between 84A and 90A hardness.

Indoor rinks with sport courts offer the best mix of roll, grip, and slide. The perfect wheel hardness for sport courts varies between 88A and 96A.

WHICH WHEEL HARDNESS SHOULD BE USED FOR DIFFERENT PURPOSES?

Different sports and skaters have special requirements in terms of wheel hardness. In the following, we present a brief overview.

BEGINNER: With the first pair of skates, beginners usually start to skate outdoors. Softer wheels are better for the beginner because they provide more grip. Grippier wheels usually make the beginner feel more secure as they will "stick" to the surface. Softer wheels can be used indoors, too, if the floor has a slippery surface to give you more grip.



Wheels.

ROLLER DERBY: The hardness of roller derby wheels depends on the indoor surface mentioned before. Grippe floors require a hardness of 92A to 100A, for slick surfaces a durometer between 84A and 90A, and for sport courts, you better use 88A to 96A wheels.

DANCE: Dance skating is a more European style linked to outdoor activities as skate rinks are very rare vs. Rhythm & Jam skating is heavily linked to the USA where also a lot of indoor activities take place. Wheels for outdoor skating are softer as mentioned already and so are the wheels for dance skating as well. Their hardness ranges between 78A and 85A.

JAM:

Jam skating is all about expression with partially extreme moves. This merge of break dancing and modern-day dancing puts a lot of pressure on the wheels. The high impact requires harder wheels ranged between 90 and 101A hardness

PARK:

To not get stuck with wheels on copings, rails, and other obstacles the wheel hardness should vary between 90A and 101A. The wheels don't provide good rolling comfort, but a fast roll between the obstacles.

**HARDNESS/DUROMETER QUICK GUIDE
DERBY**

96A-100A / coated indoor surface-wood

92A-96A/ clean indoor surface-tile

88A-94A/ dirty indoor surface- Dust can cause slick wheels and slick surface

80A-86A/ hybrid outdoor material with large wheels

78A-80A/ outdoor material with small hub



Wheels.

PARK

97A-101A or 81B-84B/ Concrete Bowls
94A-100A/ metal and composite ramps
94A-96A/ outdoor dance

CRUISING OR TRAIL SKATING

78A-84A/ street with/small hub and larger footprint

WHICH WHEEL WORKS BEST FOR ME?

The performance of a roller skate wheel depends on two main parameters – the diameter and width, both given in millimeters. A wheel description showing for example 59mmx38mm has a diameter of 59mm and is 38mm wide. These two numbers will each have their significant impact on the wheel's performance.

Smaller wheels can accelerate faster, but their maximum speed is slower compared with taller wheels. It's also easier to maintain the speed with bigger wheels.

Indoor wheels mainly have a diameter between 59mm and 62mm while outdoor wheels are often even taller and are offered in a range of 61mm to 70mm.

CRUISING: Large and soft wheels offer a smooth and comfortable roll when cruising outside on asphalt and concrete. The wheel size typically varies between 61mm and 70mm and a width of 38mm-44mm.

ROLLER DERBY: Typical roller derby wheels have a size of 59mm to 62mm with a width of 38mm to 40mm.

DANCE: to change direction fast wheels for dance skating are rather small and range between 57mm to 62mm by 32-38mm in width



Wheels.

JAM: They prefer to skate smaller wheels because that makes direction changes faster, and accelerate afterward, which is essential for most of the moves. A typical size is 57mm-62mm with a medium width of around 38mm.

PARK: park skaters prefer smaller and thinner wheels to not get stuck. The size varies from about 50mm to 59mm in diameter. The width is often reduced to about 32mm.

Attention:

Make sure to use wheels with the same diameter on your skates. Don't mix wheels like inside smaller and outside taller wheels. Wheels need to have the same size on your skates.

WHICH WHEEL PROFILE OR WHEEL WIDTH SHOULD I CHOOSE?

TOTAL WHEEL WIDTH (in mm)



FOOTPRINT (in mm)



Wheels.

The width of a wheel aka profile is the total size of a wheel when measured across. The actual contact area of a wheel with the surface is the so-called footprint. It's the actual area of the wheel that touches the ground, not including any bevels, lips, or edges. Grip and speed as well as balance and agility are defined by the footprint. Narrow wheels between 32mm and 38mm offer better maneuverability and help to prevent clipping with other skaters while wider wheels provide an improved stand and balance on your skates thanks to the larger footprint.

Beginner skaters might feel better on skates with a wider profile between 40mm and 44mm which offers more balance and stability.

The most common width is 38mm which offers the perfect mix of speed, grip, and balance.

Wheels with 32mm profiles are widely used in park skating.

30-32mm: super narrow and lightweight which offer great agility, but are the least stable and offer much less grip than wider wheels. Recommended for advanced skaters.

35mm: narrow and light wheels with high agility, but give a little more stability and grip. Recommended for intermediate and advanced skaters.

37-38mm: medium-wide wheels which offer the best balance of roll, grip as well as stability, and agility. Recommended for beginner, intermediate and advanced skaters.

40-44mm: very wide wheels with great grip and stability, but heavier with less agility. Recommended for beginner and advanced skater (speedskating).



Wheels.

WHAT ARE "LIPS" OR "EDGES" OF A WHEEL AND WHAT SHOULD I SELECT?

The lips and edges of the wheel affect the overall grip and performance. The lips are the very edge of the wheel and depending on their cut and shape they affect the total amount of footprint that a wheel has on a surface.

Square lips have a straight drop and have the maximum footprint and more grip than other wheels. There are not many wheels that have complete square lips, but there are some that are more rounded than others. Rounded lips have more give and less traction than square lips. There are various rounded lip shapes. Wheels with a round lip have less grip but offer a better slide and cruising performance than their counterparts with lips at the same hardness.

On either extreme of the round and square lip spectrum, you will find a middle ground where most wheels live.

OUTDOOR CRUISING: wheels for outdoor cruising have a round edge for easier skating.

JAM: Jam wheels tend to have wheel lips, their function is to absorb the impact and help you correct what could be an error during a landing, and make sure you don't lose balance.

ROLLER DERBY: the shape and edge of a derby wheel have a big influence on your game. This is because nearly every skating action you make will engage those edges, so how they respond will have a great impact on how the wheel performs.

Wheels that have their urethane tire overhanging the hub will have what we call "soft" edges that flex and provide better traction during lateral movements.

Other wheels, usually the narrower sizes, will have their tires reinforced entirely by the hub. These "hard" edges provide better roll and will typically slide easier.



Wheels.

PARK: wheels for park skating have round edges. In combination with a smaller diameter and narrow width, the round edge helps to avoid that the wheel getting stuck during slides and grinds.



SQUARE LIPS



ROUND LIPS



THREAD



THREAD



The thread of a wheel doesn't provide a better grip as many of the skaters might think. Quality roller skate wheels are made of polyurethane and as a wheel gets heated up, it will grip more to the surface you are skating on. One place where tread does help you is when you have just put your skates on and you start skating. In this case, your wheels have not heated up yet, and so the extra tread does help keep you more stable for a short time.



Wheels.

WHICH WHEEL HUB/CORE SHOULD I CHOOSE?

Hubs aka cores of roller skate wheels are typically made from durable nylons or aluminum material. The hub is the housing of the bearings and is the central support for the wheel. The larger the hub, the lighter the wheel becomes and the less urethane is used to complete the final diameter of the wheel.

NYLON CORES

Wheels featuring a nylon core are lightweight but more affordable. These often come with spokes or small solid "mini" hub versions. These wheels tend to be slower as they don't transfer power to the wheel as well as an aluminum core. They also are softer because the core does not help to keep the wheel round. This means more footprint on the surface, resulting in a slower overall ride. So, will I feel a difference? Most do not.

ALUMINUM CORES

These cores are the strongest and most rigid ones. They are also the heaviest and most expensive types. The stiffer core allows for the wheels to roll longer as it keeps the wheel perfectly round. These wheels also slip easier when you push because they are more round and don't give you as much traction.

NYLON CORE



ALUMINUM CORE



HOLLOW CORE

