

## Lamigamid® guide rollers and wheels for cable cars and material handling technology

The Lamigamid® runner wheels have been used successfully for decades in hoists and transport systems. Thereby the plastic product meets the general requirements for running wheels much more than comparable steel wheels. The more elastic and therefore more flexible material has a gentle effect not only on the bearing but also on the rail or rope and thus the service life time of the system.



Runner wheels made from Lamigamid®

### The advantages of guide rollers and wheels made of Lamigamid®

- All Lamigamid® materials are highly fatigue resistant and characterized by excellent elastic capacity.
- Their E-moduli are considerably lower than those of steel, cast steel and cast iron.
- These the lower e moduli of the material compared to metallic materials are advantageous for highly stressed runner wheels. The plastic materials deform, thereby creating larger support surfaces which, in turn, result in smaller maximum surface pressure values.
- The elastic property is sufficient to restore the wheel to its original form after the load is released. If a runner wheel has been subjected to static loads over a long period of time, the contact points may show visible flattening. However, these flattenings will be stretched after a few roll motions.

## Lamigamid® - Qualities: The right material for every application

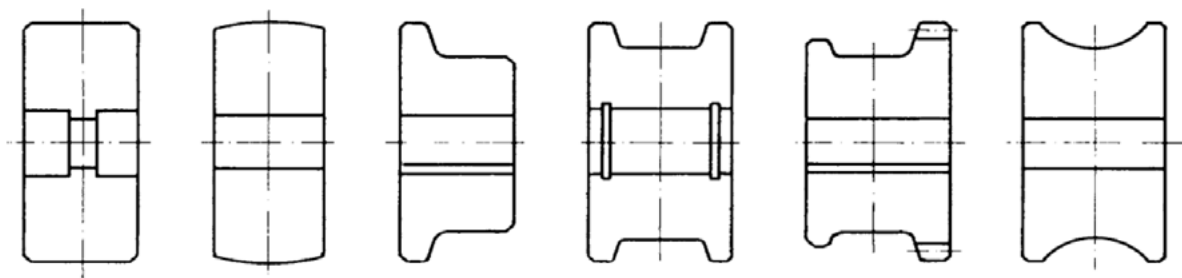
Runner wheels for heavy-duty service can be made from Lamigamid® 304, 310, 319, 324/327 and 1200.

- Lamigamid® 310 - a resilient-hard cast polyamide and the standard quality for runner wheels, usually used with rolling or sliding bearings.
- Lamigamid® 319 - an oil-filled and resilient-hard cast polyamide with a low coefficient of friction during dry running and a low moisture absorption and therefore also suitable for the use in water and outdoor applications.
- Lamigamid® 1200 - manufactured in a pressure-less casting process. The result is an almost stress-free and homogeneous material with outstanding properties for highly loaded applications.

## Dimensions and types

Lamigamid® runner wheels can be supplied in any desired sizes and shapes. All the cast or spun-cast materials used are subjected to thermal conditioning and characterized by excellent plastic properties.

In most cases Lamigamid® runner wheels are made from round bar stock or from tubes. Runner wheels with outside diameters of 40 - 300 mm are machined on CNC-controlled lathes. Larger wheels, i.e. with outside diameters from 300 to 1000 mm, are first cast or spun-cast in moulds and subsequently machined on CNC controlled lathes.



Different designs of runner wheels made of Lamigamid® materials

## Tailor-made solutions

The use of Lamigamid® runner wheels is essentially dependent on the wheel load, the speed and the ambient temperatures. Basically, the compression at the running surface is to be calculated when using plastic roller wheels. Our designers are at your disposal for calculations specifically tailored to your applications.



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