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# Industrial Casters Buying Guide: Specs & Loads

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**Quick answer.** Spec an industrial caster by running six variables in order: load per caster ((gross weight ÷ 3) × 1.33 safety factor), wheel material matched to floor, bearing type, rig construction, floor condition, and travel profile. Polyurethane on steel is the default wheel; kingpinless rigs outlast kingpin rigs 3 to 5x under continuous duty. Verify capacity with an ICWM test report.

## Load rating math: the only formula that matters

Cart Weight	3-Caster Effective	4-Caster Effective	Required Rating
1,200 lb	400 lb/caster	300 lb/caster	600 lb min
2,400 lb	800 lb/caster	600 lb/caster	1,100 lb min
4,800 lb	1,600 lb/caster	1,200 lb/caster	2,200 lb min
9,600 lb	3,200 lb/caster	2,400 lb/caster	4,400 lb min

## Wheel material matrix: match wheel to floor and chemistry

Wheel Material	Load Range (lb)	Temp Range	Best For
Polyurethane / Steel	600 to 2,500	-40 to 180°F	General industrial
Phenolic	600 to 5,000	-45 to 475°F	Bakery, forge, paint line
Cast Iron	1,000 to 10,000	-45 to 800°F	Max load on concrete
Pneumatic Rubber	250 to 1,000	-20 to 180°F	Outdoor / rough surface
Nylon	800 to 3,500	-40 to 200°F	Washdown / chemical



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