

TECHNICAL REFERENCE · PRINT & KEEP

How Floor Conditions and Wheel Material Selection

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Quick answer. Match the wheel to the floor before the load. Sealed concrete calls for 95A polyurethane, epoxy coatings for softer 80A urethane or mold-on rubber, outdoor asphalt for pneumatic, expansion joints for larger diameters, cold rooms for non-marking solid rubber, and grating for wide-tread cast iron. Correct floor-to-wheel matching can triple caster service life.

Epoxy and Urethane Floor Coatings

Coating Type	Recommended Wheel	Durometer	Max Load
Epoxy (2-6 mil)	Mold-On rubber	70A-80A	800 lb
Epoxy (10-20 mil)	Soft polyurethane	80A-85A	1,500 lb
Urethane coating	Mold-On or soft PU	75A-85A	1,200 lb
Polyaspartic	Standard 95A PU	90A-95A	2,200 lb
Bare sealed concrete	95A polyurethane	95A	2,500 lb

Cold Rooms, Washdown, and Chemical Exposure

Environment	Wheel	Rig	Bearing
Cold room (-20F)	Low-temp urethane	Zinc-plated	Sealed precision
Freezer (-40F)	TPU cold-rated	Stainless	Sealed precision
Washdown (USDA)	Nylon or urethane	Stainless	Sealed stainless
Acid / caustic	Phenolic or PP	Stainless	PTFE sleeve
Oil / solvent	Nitrile or PU	Stainless	PTFE or Delrin



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