








# Load classification (AS3996)

Access Covers and Grates are designated by classes A, B, C, D, E, F & G according to load capacity set out in the table below. This table is an extract from AS3996:2019.

The appropriate class for a cover or grate depends on the location of installation. Some examples are outlined in this table; however it is the responsibility of the designer to ensure an appropriate class is selected and/or specified. Specifics of the location should be taken into consideration when selecting the right cover or grate. The speed of traffic, wheel type and the physical position (turning area) should all be assessed.

Type	Class	Typical use	Nominal wheel loading (kg)	Serviceability design load (kN)	Ultimate limit state design (kN)
	A	Areas accessible strictly by pedestrians. Not suited to vehicles. Purpose – residential backyards. Walkways not accessible by vehicles.	330kg	6.7kN	10kN
	B	Private and shared residential property. Suitable for vehicles accessing driveways and footways. Low speed only. Purpose – residential driveways. Unit sites. Parklands. Residential car parks.	2,670kg	53kN	80kN
	C	Residential roads and car parks trafficable to vehicles. Purpose – areas with slow moving traffic and minor roads.	5,000kg	100kN	150kN
	D	Major roads including freeway and motorway shoulders. Warehouses and loading docks. Purpose – major roads.	8,000kg	160kN	240kN
	E	Freeway and motorway carriageways. Suitable for all heavy vehicles. Purpose – freeways and motorways.	13,700kg	267kN	400kN
	F	Docks, wharfs and airport service and taxiways. Purpose – heavy and high traffic volumes.	20,000kg	400kN	600kN
	G	Docks, wharfs and airway runways. Purpose – heavy and high traffic volumes.	30,000kg	600kN	900kN

## Notes

1. Nominal wheel loads are given as a guide only. Consideration should be given to the type, size and pneumatic pressure of the load applied. 2. Class B design loads exceed AS5100.2 requirements for footway loading. 3. Class D design loads exceed AS5100.2 requirements for a W80 wheel load. 4. Class C loads are based on an intermediate load. 5. The ultimate limit state load is 3 times the nominal wheel load and 1.5 times the serviceability load