



### **OBJECTIVES/**

The objective of TRACKLOK™ is to:

- Safeguard people from injury caused by the failure of internal partition wall systems due to seismic activity or fire.
- Safeguard people from loss of amenity caused by the behavior of internal partition wall systems during seismic activity or fire.
- Protect other property and structures from physical damage caused by internal partition walls due to seismic activity or fire.
- Ensure partitions efficiently comply with ceiling manufacturer's regulations.

## **FEATURES AND BENEFITS/**

- Secures partition walls and glazing lines, under ceiling to slab above.
- Designed and tested to mitigate risk to life and property.
- Applicable to all seismic zones and all seismic loads.
- Meets or exceeds all national code requirements.
- Unique design for variable bracing stock to be utilized, reducing waste.
- Low profile allows installation in partition and glazing head tracks.
- Engineered to eliminate ceiling grid interaction and to protect warranty.
- Designed to absorb seismic energy, reducing partition wall failure.

# APPLICATIONS/

- Commercial Interiors
- Offices
- Schools
- Hospitals

#### MATERIAL

Steel components are treated and hardened. Rubber components are specifically designed to protect life and property in the event of damage caused by seismic activity or fire.

## INSTALLATION/

Must be installed in compliance with standard industry practices and within the parameters of AS/NZS1170.0:2002 Must be installed as per manufacturers specification. The unit must not be deformed or altered in any way. Partition walls must be installed as per supplier recommendation. Create a minimum clearance of 10mm from unit to ceiling tile and/or grid. Installation at centres referenced in literature which are unique to specific seismic zones. Centres are based on partition height not exceeding three meters and partition weight not exceeding 60kg/m². Ceiling void heights must not exceed 1.3 meters. Approved seismic fixings or fasteners to be used for attachment to slab above.

Structural engineer and relevant regulatory bodies must approve variations of installation. Bracing material must be fixed with 10-gauge drill point wafer head tech screws. Steel bracing material must be a minimum of 64mm .55 BMT or 92mm .55 BMT. Timber bracing material must be a minimum of H1.2 90mm x 45mm. Although all aluminum head track is acceptable for use we do not take responsibility or liability for performance of or installation of partition head track. Doorways must be supported either side. Installation is required 100mm – 300mm from the end of blade walls. Use of this product does not increase the

seismic load capacity of installed ceiling grid. Deflection must be accounted for by following correct installation of wall and ceiling system as per wall and ceiling manufacturers specifications. Top brace fixings must be capable of resisting an ultimate load of 5kN in tension combined with 5kN in shear. Braces should be installed at 45° angle where possible or between 30°-60° to horizontal. These charts are based on the bracket capacity only. The maximum span of the head track and the capacity of the head track fixing the 8mm bolt needs to be checked by the specifier based on the head track size and material specified. Aluminium head tracks less than 3mm thick may be governed by bolt bearing at the connection with the unit. In these circumstances the tightening of the bolt fixing to the head track may be relied on to provide sufficient clamp force to prevent slip in the bolt connection under SLS and ULS loads.

This should be clearly stated by the specifier and monitored

on site during construction. Without sufficient clamp force the spacings specified will need to be reduced based on the bearing capacity of the bolt/head track connection.

#### LIMITATIONS/

For interior application only. Designed to seismically secure standard partition and glazed walls. Not applicable for supporting walls constructed from concrete, tilt slab or block. Structural engineer and regulatory body must approve configurations outside of specification. The unit and or bracing material must not be used as an anchor point or fixing point by associated trades. The unit is designed to move under seismic

loads, therefore a continuous partition head above doorways is recommended to maintain the opening's rigidity.

## CODE COMPLIANCE/

The information presented is correct to the best of our knowledge at the date of issuance. Because codes continue to evolve, check with a local official prior to designing and installing the seismic partition tie system. Other restrictions and exemptions may apply. The system is necessary for the continuing function of the evacuation and life safety systems within the structure. Provides construction projects with a compliant proprietary unit to seismically secure internal partition walls under ceiling to structure above.

Complies with AS/NZS1170.0:2002 and AS/NZS4219.

#### TESTING/

Load testing of the bracket assembly in accordance with AS/NZS1170.0:2002 has been carried out.

#### NOTICE/

We shall not be liable for incidental and consequential damages, directly or indirectly sustained, nor for any loss caused by application of these goods not in accordance with current printed instructions or for other than intended use. Our liability is expressly limited to replacement of defective goods. Any claim shall be deemed waived unless made in writing to us within thirty (30) days from the date it was or reasonably should have been discovered.





## **IMPORTANCE LEVEL 2 - NORMAL STRUCTURES\***

\*Refer to AS/NZS1170.0:2002 for guidance

PARTITION WEIGHT/m <sup>2</sup>	PARTITION HEIGHT
60kg/m <sup>2</sup>	2.7m

AUCKLAND			CHRISTCHURCH			WELLINGTON (BUILDING PERIOD <1.5 sec)					
Z=0.13, Soil Class C, IL=2	LOAD/m	WIND LOAD/m	MAX	Z=0.3, Soil Class D, IL=2	LOAD/m	WIND LOAD/m	MAX	Z=0.4, Soil Class D, IL=2	LOAD/m	WIND LOAD/m	MAX
HEIGHT (m)	kN/m	kN/m	CENTRES(m)	HEIGHT (m)	kN/m	kN/m	CENTRES(m)	HEIGHT (m)	kN/m	kN/m	CENTRES(m)
3	0.42	1.01	2.4	3	0.8181	1.01	2.4	3	1.0854	1.01	2.4
6	0.56	1.01	2.4	6	1.0854	1.01	2.4	6	1.4499	1.01	1.8
9	0.70	1.01	2.4	9	1.3608	1.01	1.9	9	1.8144	1.01	1.4
>=12	0.84	1.01	2.4	>=12	1.6362	1.01	1.6	>=12	2.1789	1.01	1.2

PARTITION WEIGHT/m <sup>2</sup>	PARTITION HEIGHT
60kg/m <sup>2</sup>	3m

AUCKLAND			CHRISTCHURCH				WELLINGTON (BUILDING PERIOD <1.5 sec)				
Z=0.13, Soil Class C, IL=2	LOAD/m	WIND LOAD/m	MAX	Z=0.3, Soil Class D, IL=2	LOAD/m	WIND LOAD/m	MAX	Z=0.4, Soil Class D, IL=2	LOAD/m	WIND LOAD/m	MAX
HEIGHT (m)	kN/m	kN/m	CENTRES(m)	HEIGHT (m)	kN/m	kN/m	CENTRES(m)	HEIGHT (m)	kN/m	kN/m	CENTRES(m)
3	0.47	1.13	2.4	3	0.909	1.13	2.4	3	1.206	1.13	2.2
6	0.62	1.13	2.4	6	1.206	1.13	2.2	6	1.611	1.13	1.6
9	0.77	1.13	2.4	9	1.512	1.13	1.7	9	2.016	1.13	1.3
>=12	0.94	1.13	2.4	>=12	1.818	1.13	1.4	>=12	2.421	1.13	1.0

#### GENERAL NOTES - Height (m)=height of floor above partition being connected.

- The above tables are for importance level 2 (IL=2) buildings in accordance with table AS/NZS1170.0:2002 NORMAL STRUCTURES
- Design based on Rp=1.0 for parts and 50 year design life
- Please refer to the soil classes used for each location. If the soil class differs from what is stated then a specific design is required.
   Maximum c/c set to 2.4m assuming top track can span this distance. Specifiers should ensure that the top track can span for spacing and ULS horizontal load/m stated. ALSO SEE INSTALLATION NOTES
- Wind load is applicable for up to Very High Wind (1.5 kPa), for buildings with 2, 3 or 4 walls of equal permeability. For wind pressures>1.5kPa, or for buildings with  $dominant\ openings\ or\ permeability\ on\ 1\ side\ a\ specific\ design\ is\ required.\ In\ accordance\ with\ AS/NZ1170:2011\ clause\ 5.3.4\ and\ table\ 5.1(A)\ a\ nett\ pressure\ coefficient$ of -0.3 + -0.2 = -0.5 has been applied for internal partitions.

Note for Wellington provided the period of the building is < 1.5 then the near fault factor does not apply For buildings with a period>1.5 then a specific design is required.

## IMPORTANCE LEVEL 3 - PUBLIC BUILDINGS, SCHOOLS, HOSPITALS, CROWDS ETC\*

PARTITION WEIGHT/m <sup>2</sup>	PARTITION HEIGHT
60kg/m <sup>2</sup>	2.7m

AUCKLAND				CHRISTCHURCH			WELLINGTON (BUILDING PERIOD <1.5 sec)				
Z=0.13, Soil Class C, IL=3	LOAD/m	WIND LOAD/m	MAX	Z=0.3, Soil Class D, IL=3	LOAD/m	WIND LOAD/m	MAX	Z=0.4, Soil Class D, IL=3	LOAD/m	WIND LOAD/m	MAX
HEIGHT (m)	kN/m	kN/m	CENTRES(m)	HEIGHT (m)	kN/m	kN/m	CENTRES(m)	HEIGHT (m)	kN/m	kN/m	CENTRES(m)
3	0.5427	1.01	2.4	3	1.0611	1.01	2.4	3	1.4175	1.01	1.8
6	0.729	1.01	2.4	6	1.4094	1.01	1.9	6	1.8873	1.01	1.4
9	0.9072	1.01	2.4	9	1.7658	1.01	1.5	9	2.3571	1.01	1.1
>=12	1.0935	1.01	2.4	>=12	2.1222	1.01	1.2	>=12	2.8269	1.01	0.9

PARTITION WEIGHT/m <sup>2</sup>	PARTITION HEIGHT
60kg/m <sup>2</sup>	3m

AUCKLAND			CHRISTCHURCH				WELLINGTON (BUILDING PERIOD <1.5 sec)				
Z=0.13, Soil Class C, IL=3	LOAD/m	WIND LOAD/m	MAX	Z=0.3, Soil Class D, IL=3 LOAD/m WIND LOAD/m MAX		Z=0.4, Soil Class D, IL=3	LOAD/m	WIND LOAD/m	MAX		
HEIGHT (m)	kN/m	kN/m	CENTRES(m)	HEIGHT (m)	kN/m	kN/m	CENTRES(m)	HEIGHT (m)	kN/m	kN/m	CENTRES(m)
3	0.603	1.13	2.4	3	1.179	1.13	2.2	3	1.575	1.13	1.6
6	0.81	1.13	2.4	6	1.566	1.13	1.7	6	2.097	1.13	1.2
9	1.008	1.13	2.4	9	1.962	1.13	1.3	9	2.619	1.13	1.0
>=12	1.215	1.13	2.2	>=12	2.358	1.13	1.1	>=12	3.141	1.13	0.8

### GENERAL NOTES - Height (m)=height of floor $\underline{above}$ partition being connected.

- The above tables are for importance level 3 (IL=3) buildings in accordance with table AS/NZS1170.0:2002 PUBLIC BUILDINGS, SCHOOLS, HOSPITALS, CROWDS ETC
- Design based on Rp=1.0 for parts and 50 year design life
   Please refer to the soil classes used for each location. If the soil class differs from what is stated then a specific design is required.
- Maximum c/c set to 2.4m assuming top track can span this distance. Specifiers should ensure that the top track can span for spacing and ULS horizontal load/m stated. ALSO SEE INSTALLATION NOTES
- Wind load is applicable for up to Very High Wind (1.5 kPa), for buildings with 2, 3 or 4 walls of equal permeability. For wind pressures>1.5kPa, or for buildings with dominant openings or permeability on 1 side a specific design is required. In accordance with AS/NZ1170:2011 clause 5.3.4 and table 5.1(A) a nett pressure coefficient of -0.3 + -0.2 = -0.5 has been applied for internal partitions.

Note for Wellington provided the period of the building is <1.5 then the near fault factor does not apply. For buildings with a period>1.5 then a specific design is

