

# THE RED BOOK™

## FIRE & ACOUSTIC DESIGN GUIDE

### Addendum June 2013

#### GYPROCK™ PARTY WALL SYSTEMS

#### OVERVIEW

The CSR Gyprock Red Book™ contains a wide range of fire and/or acoustic rated wall systems. This addendum provides information on a series of Internal Party Wall systems utilising the recently introduced and highly cost effective Bradford Acoustigard™ insulation matched with a range of Gyprock plasterboard materials.

#### APPLICATIONS

The CSR Gyprock™ Party Wall System is designed to provide a separating wall between dwellings that are side-by-side such as town houses.

CSR Gyprock™ Party Wall comprises a double frame wall with a 25mm Shaft Liner Panel fire barrier between the frames. The basis of the fire performance is the central fire barrier, which provides the primary fire resistance, with the frame lining on each side contributing to some extent. This allows the wall linings to be installed as per normal decorative linings and to incorporate penetrations.

The basis of the acoustic performance is a double cavity system. This provides impact isolation, with connections only at wall perimeters as allowed by the BCA definition of discontinuous construction. Insulation in both cavities is used to meet various performance levels, including allowance for certain penetrations and services that may occur.

#### ABOUT BRADFORD ACOUSTIGARD™

Bradford Acoustigard™ products can assist in the control of acoustics, as well as delivering improvements in the thermal performance of the building structure.

The Bradford Acoustigard™ range is suitable for use in a variety of these acoustic applications and as a thermally certified (according to AS/NZS4859:1) insulation material, it also contributes to the building's energy efficiency rating.

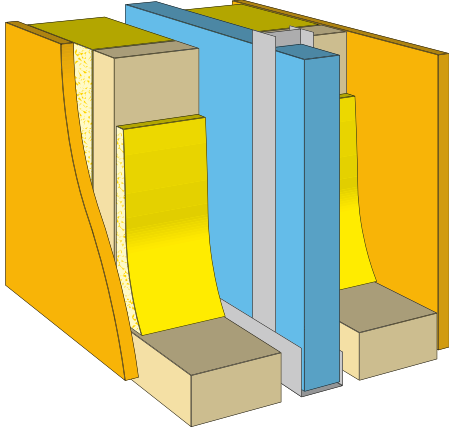
The Bradford Acoustigard™ product range has been designed to provide both a broad range of thicknesses to suit different cavity in-fill applications, as well as a substantial range of densities to meet acoustic and thermal specifications.

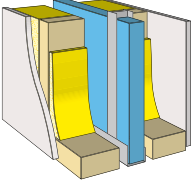
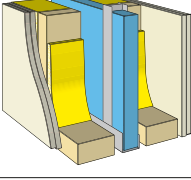
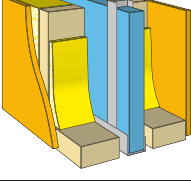
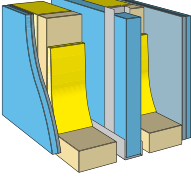
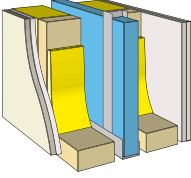
If you require assistance specifying Acoustigard™, CSR Bradford's experienced technical team include on-staff engineering and architectural support to help you with specifying the right product, as well as access to CSR's Building Scientist. In selecting the most appropriate solution for your application, CSR Bradford always recommends that an acoustic engineer is consulted early in the project.

#### ADDITIONAL INFORMATION

For technical assistance with Gyprock™ Party Wall systems, please contact CSR DesignLINK™, [designlink@csr.com.au](mailto:designlink@csr.com.au) or call 1800 621 117.

# Timber Frame Internal Wall Systems – Party Wall with 25mm Fire Barrier

SYSTEM SPECIFICATION	TYPICAL LAYOUT (CSR 362a shown)	ACOUSTIC OPINION
<ul style="list-style-type: none"> <li>Lining material as per system table.</li> <li>Timber studs at 600mm maximum centres.</li> <li>Cavity insulation as per system table.</li> <li>20-40mm separation between frame and GYPROCK SHAFT LINER PANEL.</li> <li>25mm GYPROCK SHAFT LINER PANEL between steel H-Studs at 600mm maximum centres.</li> <li>20-40mm separation between frame and GYPROCK SHAFT LINER PANEL.</li> <li>Cavity insulation as per system table.</li> <li>Timber studs at 600mm maximum centres.</li> <li>Lining material as per system table.</li> </ul> <p>NOTES: Refer to GYP513 Gyprock™ Party Wall System for design considerations. Wall thickness given with 20mm cavities unless stated.</p>		<p><b>PKA-018</b></p> <p>Discontinuous Construction</p>

FRL Report/Opinion	SYSTEM N°	WALL LININGS	STUD DEPTH mm	70	90
			CAVITY INFILL Both sides (Refer to Section 'A')		$R_w / R_w + C_{tr}$
60/60/60 EWFA 45743	 <p><b>CSR 360</b></p>	<i>BOTH SIDES</i> • 1 x 10mm GYPROCK SUPERCHEK.	(a) 75 Gold Batts™ 2.0	60/47	61/49
			(b) 90 Gold Batts™ 2.7	61/48	62/50
			(c) 88 Soundscreen™ 2.5	61/48	62/50
			(d) 110 Acoustigard™ 2.5	61/48	62/50
			WALL THICKNESS mm	225	265
60/60/60 EWFA 45743	 <p><b>CSR 361</b></p>	<i>BOTH SIDES</i> • 2 x 10mm GYPROCK Plasterboard CD.	(a) 75 Gold Batts™ 2.0	61/49	62/50
			(b) 90 Gold Batts™ 2.7	62/50	63/51
			(c) 88 Soundscreen™ 2.5	62/50	63/51
			(d) 110 Acoustigard™ 2.5	62/50	63/51
			WALL THICKNESS mm	245	285
60/60/60 EWFA 45743	 <p><b>CSR 362</b></p>	<i>BOTH SIDES</i> • 1 x 13mm GYPROCK SOUNDCEK.	(a) 75 Gold Batts™ 2.0	61/49	62/50
			(b) 90 Gold Batts™ 2.7	62/50	63/51
			(c) 88 Soundscreen™ 2.5	62/50	63/51
			(d) 110 Acoustigard™ 2.5	62/50	63/51
			WALL THICKNESS mm	231	271
60/60/60 EWFA 45743	 <p><b>CSR 363</b></p>	<i>BOTH SIDES (ANY ORDER)</i> • 1 x 6mm CeminSeal™ Wallboard. • 1 x 10mm GYPROCK AQUACHEK plasterboard.	(a) 75 Gold Batts™ 2.0	62/50	63/51
			(b) 90 Gold Batts™ 2.0	62/50	63/51
			(c) 88 Soundscreen™ 2.5	63/51	64/52
			(d) 110 Acoustigard™ 2.5	63/51	64/52
			WALL THICKNESS mm	237	277
60/60/60 EWFA 45743	 <p><b>CSR 364</b></p>	<i>BOTH SIDES (ANY ORDER)</i> • 1 x 10mm GYPROCK SUPERCHEK plasterboard. • 1 x 10mm GYPROCK plasterboard CD.	(a) 75 Gold Batts™ 1.5	61/49	62/50
			(b) 90 Gold Batts™ 2.0	62/50	63/51
			(c) 88 Soundscreen™ 2.5	63/51	64/52
			(d) 110 Acoustigard™ 2.5	63/51	64/52
			WALL THICKNESS mm	245	285