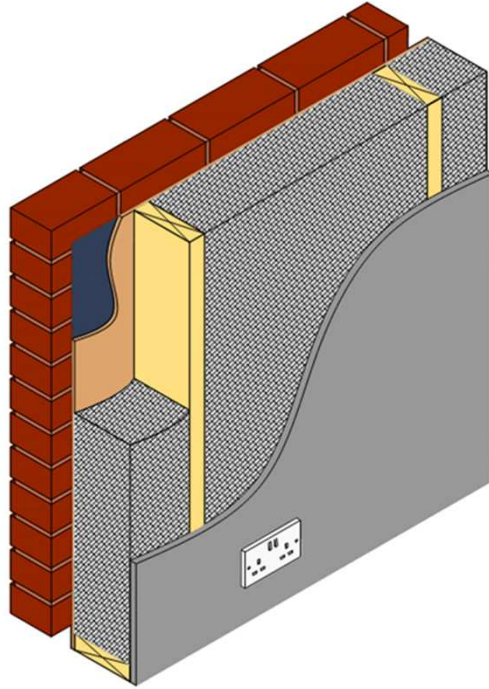
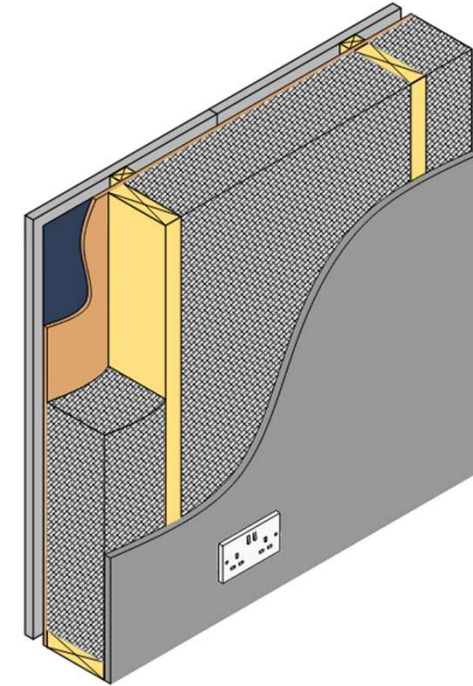


# Alpha 1 - Open Wall Panel U Values



Masonry Cladding

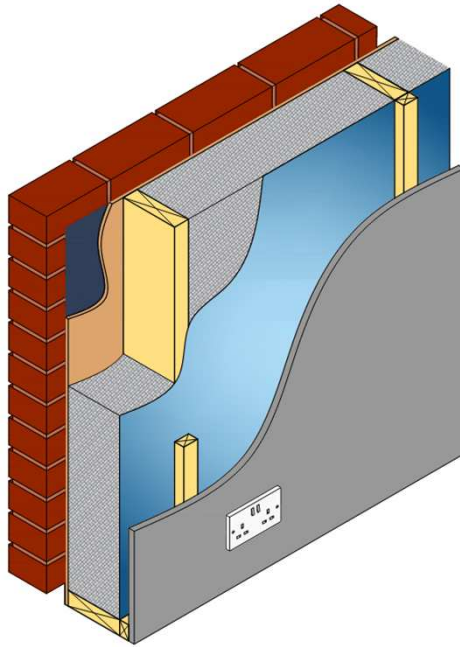
| Frame Insulation $\lambda$ | U-Value     | Bridging Factor |
|----------------------------|-------------|-----------------|
| 0.032                      | <b>0.22</b> | 12.5%           |
| 0.035                      | <b>0.23</b> |                 |
| 0.040                      | <b>0.24</b> |                 |
| 0.044                      | <b>0.26</b> |                 |
| 0.032                      | <b>0.22</b> | 15.0%           |
| 0.035                      | <b>0.23</b> |                 |
| 0.040                      | <b>0.25</b> |                 |
| 0.044                      | <b>0.26</b> |                 |



Lightweight Cladding

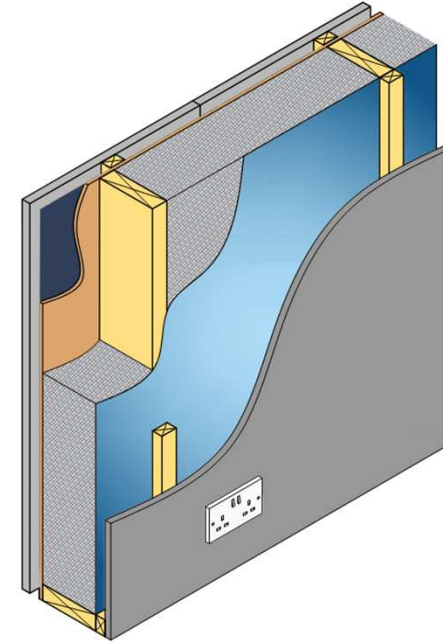
| Frame Insulation $\lambda$ | U-Value     | Bridging Factor |
|----------------------------|-------------|-----------------|
| 0.032                      | <b>0.25</b> | 12.5%           |
| 0.035                      | <b>0.26</b> |                 |
| 0.040                      | <b>0.28</b> |                 |
| 0.044                      | <b>0.30</b> |                 |
| 0.032                      | <b>0.26</b> | 15.0%           |
| 0.035                      | <b>0.27</b> |                 |
| 0.040                      | <b>0.29</b> |                 |
| 0.044                      | <b>0.31</b> |                 |

# Alpha 2 - Open Wall Panel U Values



Masonry Cladding

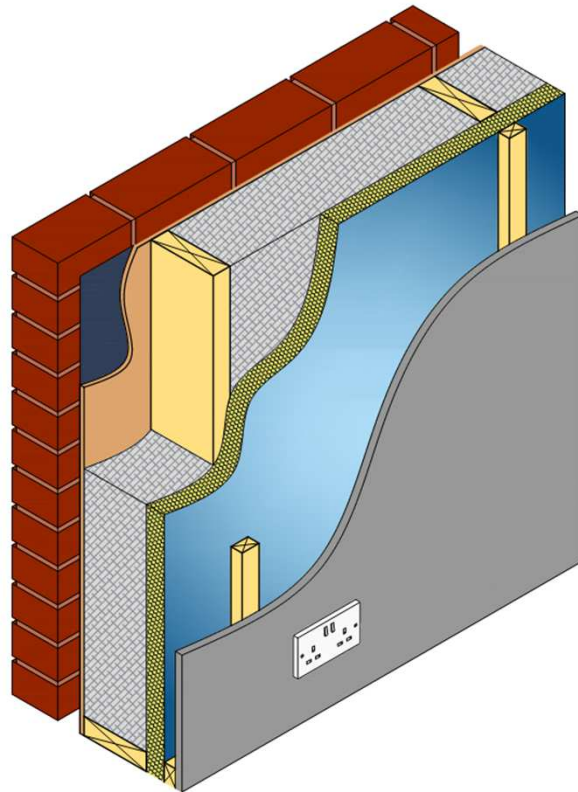
| Frame Insulation $\lambda$ | U-Value     | Bridging Factor |
|----------------------------|-------------|-----------------|
| 0.032                      | <b>0.19</b> | 12.5%           |
| 0.035                      | <b>0.19</b> |                 |
| 0.040                      | <b>0.21</b> |                 |
| 0.044                      | <b>0.22</b> |                 |
| 0.032                      | <b>0.19</b> | 15.0%           |
| 0.035                      | <b>0.20</b> |                 |
| 0.040                      | <b>0.21</b> |                 |
| 0.044                      | <b>0.22</b> |                 |



Lightweight Cladding

| Frame Insulation $\lambda$ | U-Value     | Bridging Factor |
|----------------------------|-------------|-----------------|
| 0.032                      | <b>0.21</b> | 12.5%           |
| 0.035                      | <b>0.22</b> |                 |
| 0.040                      | <b>0.23</b> |                 |
| 0.044                      | <b>0.25</b> |                 |
| 0.032                      | <b>0.21</b> | 15.0%           |
| 0.035                      | <b>0.22</b> |                 |
| 0.040                      | <b>0.24</b> |                 |
| 0.044                      | <b>0.25</b> |                 |

# Alpha 3 - Open Wall Panel U Values

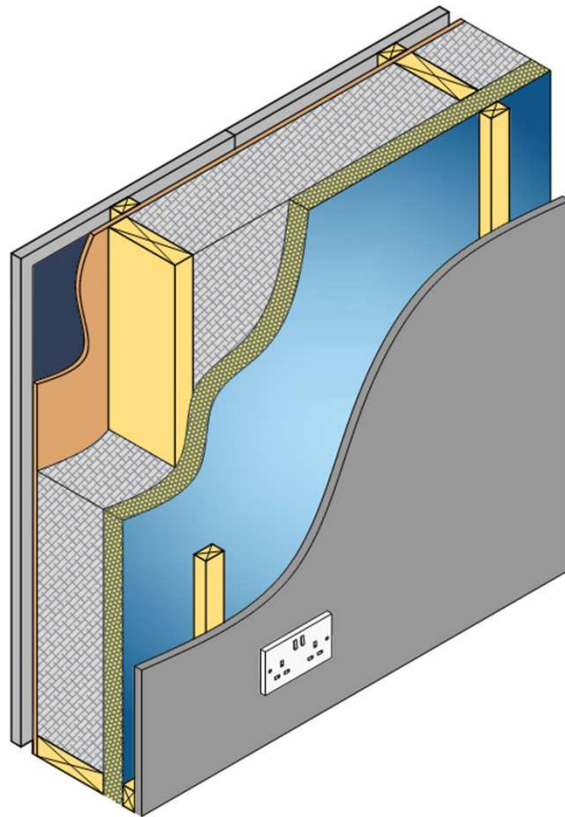


Masonry Cladding

1 (2)

| Frame Insulation $\lambda$ | PIR Liner | U-Value | Bridging Factor |
|----------------------------|-----------|---------|-----------------|
| 0.032                      | 20        | 0.16    | 12.5%           |
|                            | 25        | -       |                 |
|                            | 30        | 0.15    |                 |
|                            | 35        | -       |                 |
|                            | 40        | 0.14    |                 |
| 0.035                      | 20        | 0.17    |                 |
|                            | 25        | 0.16    |                 |
|                            | 30        | 0.16    |                 |
|                            | 35        | 0.15    |                 |
|                            | 40        | -       |                 |
| 0.04                       | 20        | 0.18    |                 |
|                            | 25        | 0.17    |                 |
|                            | 30        | -       |                 |
|                            | 35        | -       |                 |
|                            | 40        | 0.15    |                 |
| 0.044                      | 20        | 0.18    | 15%             |
|                            | 25        | 0.18    |                 |
|                            | 30        | 0.17    |                 |
|                            | 35        | 0.16    |                 |
|                            | 40        | 0.16    |                 |
| 0.032                      | 20        | 0.16    |                 |
|                            | 25        | -       |                 |
|                            | 30        | 0.15    |                 |
|                            | 35        | -       |                 |
|                            | 40        | 0.14    |                 |
| 0.035                      | 20        | 0.17    |                 |
|                            | 25        | 0.16    |                 |
|                            | 30        | 0.16    |                 |
|                            | 35        | 0.15    |                 |
|                            | 40        | -       |                 |
| 0.04                       | 20        | 0.18    |                 |
|                            | 25        | 0.17    |                 |
|                            | 30        | -       |                 |
|                            | 35        | -       |                 |
|                            | 40        | 0.15    |                 |
| 0.044                      | 20        | 0.19    |                 |
|                            | 25        | 0.18    |                 |
|                            | 30        | 0.17    |                 |
|                            | 35        | 0.17    |                 |
|                            | 40        | 0.16    |                 |

# Alpha 3 - Open Wall Panel U Values

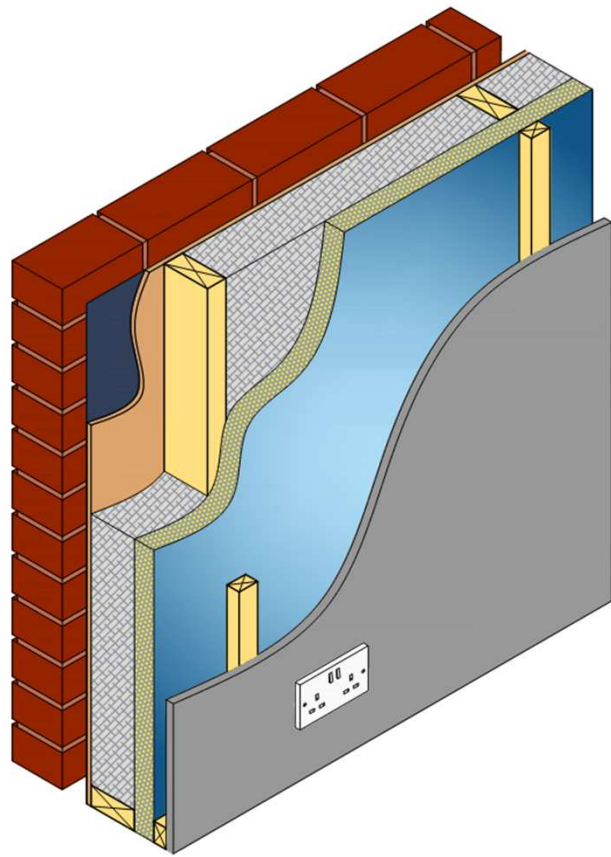


Lightweight Cladding

2 (2)

| Frame Insulation $\lambda$ | PIR Liner | U-Value | Bridging Factor |
|----------------------------|-----------|---------|-----------------|
| 0.032                      | 20        | 0.18    | 12.5%           |
|                            | 25        | -       |                 |
|                            | 30        | 0.16    |                 |
|                            | 35        | -       |                 |
|                            | 40        | 0.15    |                 |
| 0.035                      | 20        | 0.18    |                 |
|                            | 25        | 0.18    |                 |
|                            | 30        | 0.17    |                 |
|                            | 35        | 0.16    |                 |
|                            | 40        | -       |                 |
| 0.04                       | 20        | 0.20    |                 |
|                            | 25        | 0.19    |                 |
|                            | 30        | -       |                 |
|                            | 35        | -       |                 |
|                            | 40        | 0.17    |                 |
| 0.044                      | 20        | 0.20    | 15%             |
|                            | 25        | 0.20    |                 |
|                            | 30        | 0.19    |                 |
|                            | 35        | 0.18    |                 |
|                            | 40        | 0.17    |                 |
| 0.032                      | 20        | 0.18    |                 |
|                            | 25        | -       |                 |
|                            | 30        | 0.17    |                 |
|                            | 35        | -       |                 |
|                            | 40        | 0.16    |                 |
| 0.035                      | 20        | 0.19    |                 |
|                            | 25        | 0.18    |                 |
|                            | 30        | 0.17    |                 |
|                            | 35        | 0.17    |                 |
|                            | 40        | -       |                 |
| 0.04                       | 20        | 0.20    |                 |
|                            | 25        | 0.19    |                 |
|                            | 30        | -       |                 |
|                            | 35        | -       |                 |
|                            | 40        | 0.17    |                 |
| 0.044                      | 20        | 0.21    |                 |
|                            | 25        | 0.20    |                 |
|                            | 30        | 0.19    |                 |
|                            | 35        | 0.18    |                 |
|                            | 40        | 0.17    |                 |

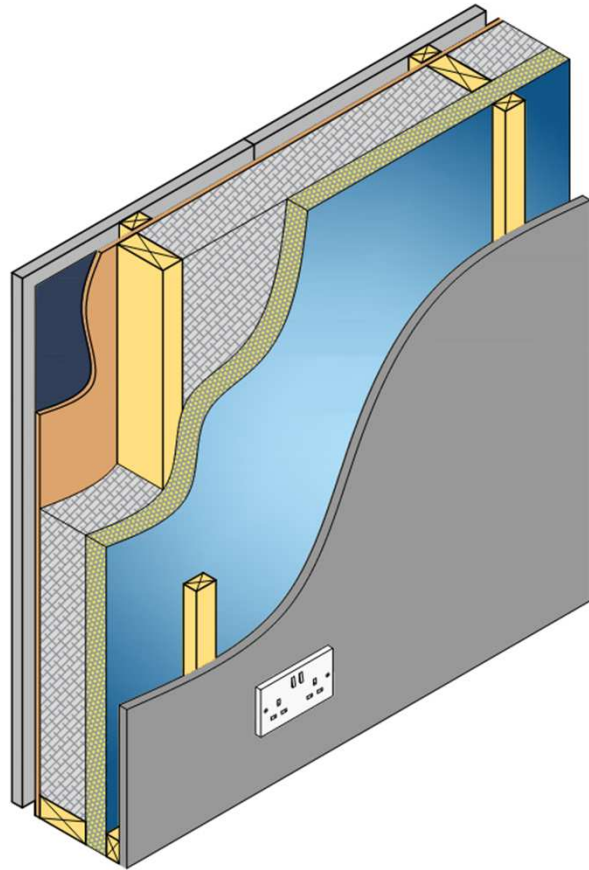
# Alpha 3-89 - Open Wall Panel U Values



Masonry Cladding

| Frame Insulation $\lambda$ | PIR Liner | U-Value     | Bridging Factor |
|----------------------------|-----------|-------------|-----------------|
| 0.032                      | 20        | <b>0.20</b> | 12.5%           |
|                            | 30        | -           |                 |
|                            | 40        | -           |                 |
| 0.035                      | 20        | <b>0.21</b> |                 |
|                            | 30        | <b>0.19</b> |                 |
|                            | 40        | <b>0.17</b> |                 |
| 0.04                       | 20        | <b>0.22</b> |                 |
|                            | 30        | -           |                 |
|                            | 40        | -           |                 |
| 0.044                      | 20        | -           |                 |
|                            | 30        | <b>0.20</b> |                 |
|                            | 40        | <b>0.19</b> |                 |
| 0.032                      | 20        | <b>0.20</b> | 15%             |
|                            | 30        | -           |                 |
|                            | 40        | -           |                 |
| 0.035                      | 20        | <b>0.21</b> |                 |
|                            | 30        | <b>0.19</b> |                 |
|                            | 40        | <b>0.18</b> |                 |
| 0.04                       | 20        | <b>0.22</b> |                 |
|                            | 30        | -           |                 |
|                            | 40        | -           |                 |
| 0.044                      | 20        | -           |                 |
|                            | 30        | <b>0.21</b> |                 |
|                            | 40        | <b>0.19</b> |                 |

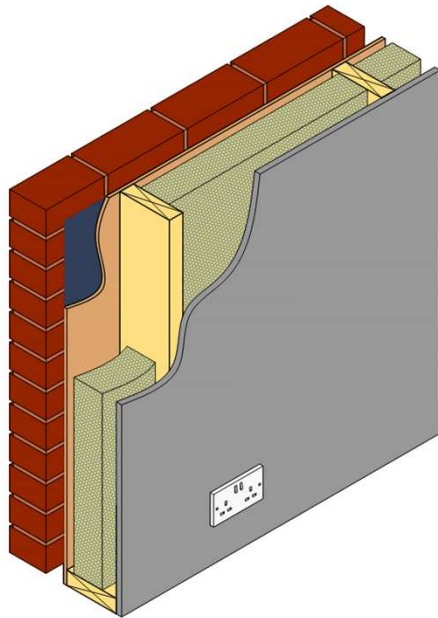
# Alpha 3-89 - Open Wall Panel U Values



Lightweight Cladding

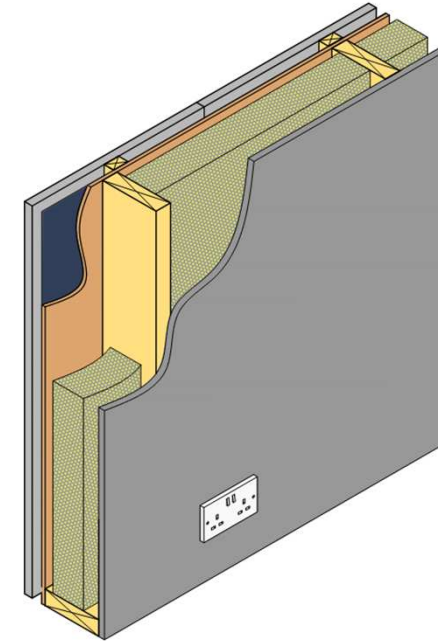
| Frame Insulation $\lambda$ | PIR Liner | U-Value     | Bridging Factor |
|----------------------------|-----------|-------------|-----------------|
| 0.032                      | 20        | <b>0.23</b> | 12.5%           |
|                            | 30        | -           |                 |
|                            | 40        | -           |                 |
| 0.035                      | 20        | <b>0.24</b> |                 |
|                            | 30        | <b>0.21</b> |                 |
|                            | 40        | <b>0.19</b> |                 |
| 0.04                       | 20        | <b>0.25</b> |                 |
|                            | 30        | -           |                 |
|                            | 40        | -           |                 |
| 0.044                      | 20        | -           |                 |
|                            | 30        | <b>0.23</b> |                 |
|                            | 40        | <b>0.21</b> |                 |
| 0.032                      | 20        | <b>0.23</b> | 15%             |
|                            | 30        | -           |                 |
|                            | 40        | -           |                 |
| 0.035                      | 20        | <b>0.24</b> |                 |
|                            | 30        | <b>0.22</b> |                 |
|                            | 40        | <b>0.20</b> |                 |
| 0.04                       | 20        | <b>0.25</b> |                 |
|                            | 30        | -           |                 |
|                            | 40        | -           |                 |
| 0.044                      | 20        | -           |                 |
|                            | 30        | <b>0.23</b> |                 |
|                            | 40        | <b>0.21</b> |                 |

# Delta 1 Pre-insulated Wall Panel U Values



**Masonry Cladding**

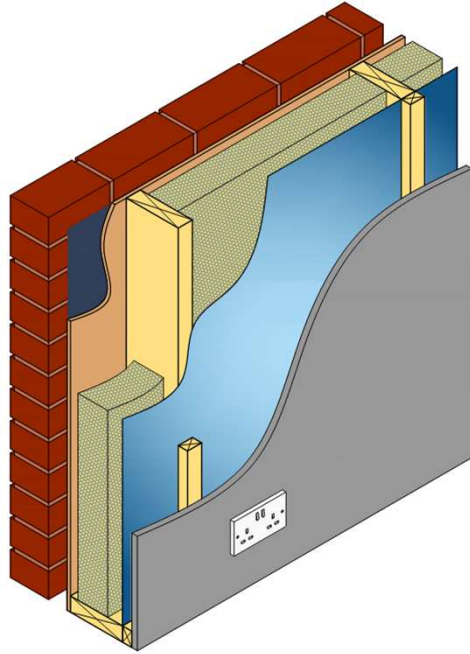
| Frame PIR | U-Value | Bridging Factor |
|-----------|---------|-----------------|
| 70        | 0.22    | 12.5%           |
| 80        | 0.20    |                 |
| 90        | 0.19    |                 |
| 100       | 0.19    |                 |
| 70        | 0.22    | 15.0%           |
| 80        | 0.21    |                 |
| 90        | 0.20    |                 |
| 100       | 0.19    |                 |



**Lightweight Cladding**

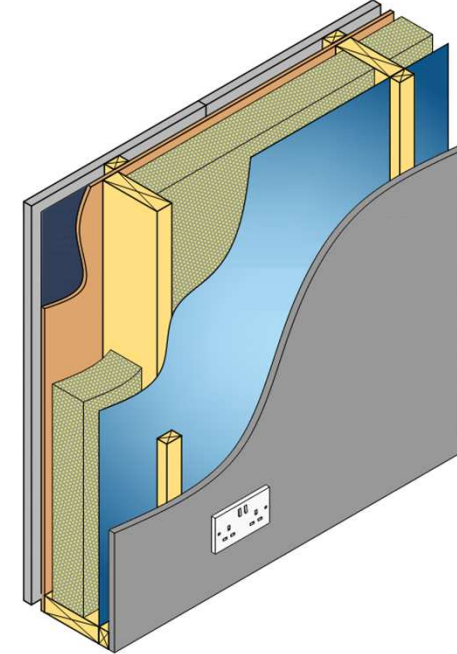
| Frame PIR | U-Value | Bridging Factor |
|-----------|---------|-----------------|
| 70        | 0.25    | 12.5%           |
| 80        | 0.23    |                 |
| 90        | 0.22    |                 |
| 100       | 0.21    |                 |
| 70        | 0.26    | 15.0%           |
| 80        | 0.24    |                 |
| 90        | 0.23    |                 |
| 100       | 0.22    |                 |

# Delta 2 Pre-insulated Wall Panel U Values



**Masonry Cladding**

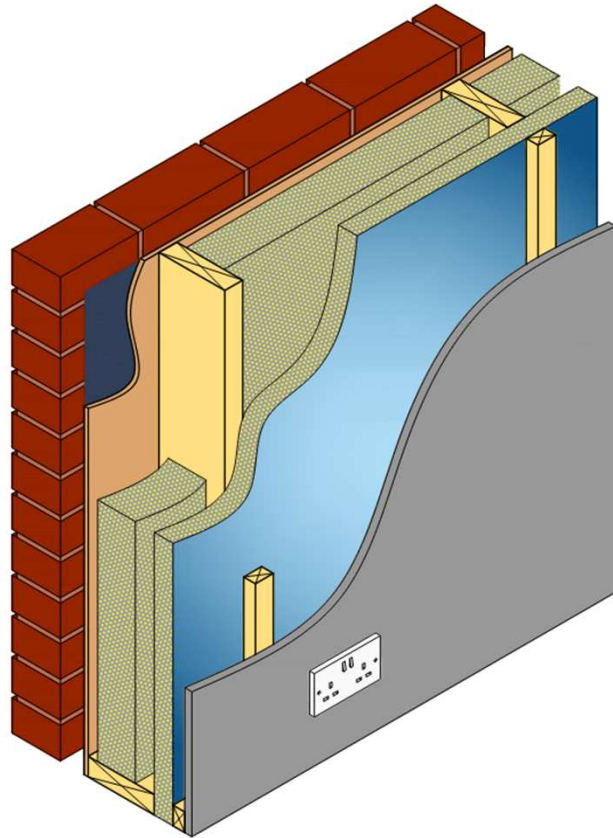
| Frame PIR | U-Value | Bridging Factor |
|-----------|---------|-----------------|
| 70        | 0.19    | 12.5%           |
| 80        | 0.18    |                 |
| 90        | 0.17    |                 |
| 100       | 0.16    |                 |
| 70        | 0.19    | 15.0%           |
| 80        | 0.18    |                 |
| 90        | 0.17    |                 |
| 100       | 0.17    |                 |



**Lightweight Cladding**

| Frame PIR | U-Value | Bridging Factor |
|-----------|---------|-----------------|
| 70        | 0.21    | 12.5%           |
| 80        | 0.20    |                 |
| 90        | 0.19    |                 |
| 100       | 0.18    |                 |
| 70        | 0.22    | 15.0%           |
| 80        | 0.20    |                 |
| 90        | 0.19    |                 |
| 100       | 0.19    |                 |

# Delta 3 Pre-insulated Wall Panel U Values

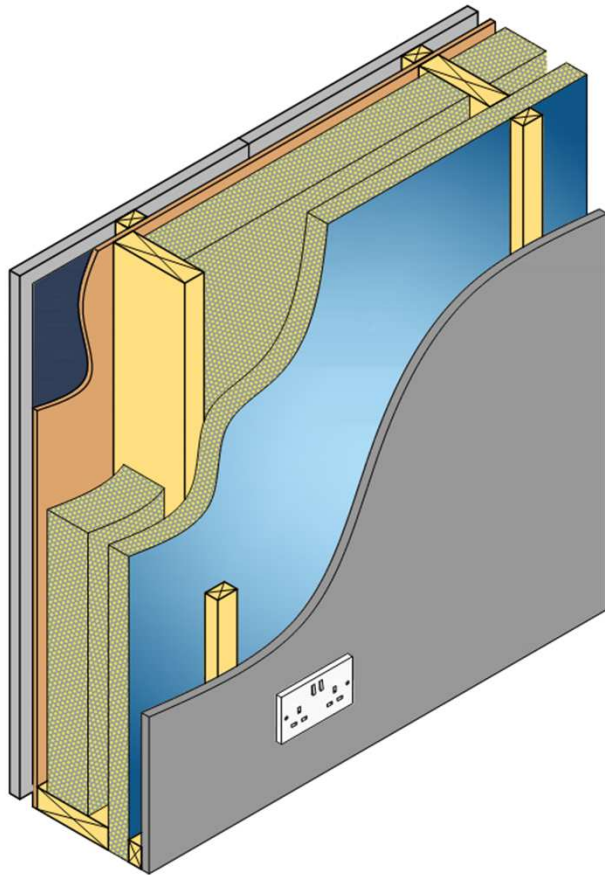


Masonry Cladding

1 (2)

| Frame PIR | PIR Liner | U-Value | Bridging Factor |
|-----------|-----------|---------|-----------------|
| 70        | 20        | 0.16    | 12.5%           |
|           | 25        | 0.16    |                 |
|           | 30        | 0.15    |                 |
|           | 35        | 0.14    |                 |
|           | 40        | 0.14    |                 |
| 80        | 20        | 0.15    |                 |
|           | 25        | 0.15    |                 |
|           | 30        | 0.14    |                 |
|           | 35        | 0.14    |                 |
|           | 40        | 0.13    |                 |
| 90        | 20        | 0.15    |                 |
|           | 25        | 0.14    |                 |
|           | 30        | 0.14    |                 |
|           | 35        | 0.13    |                 |
|           | 40        | 0.13    |                 |
| 100       | 20        | 0.14    |                 |
|           | 25        | 0.14    |                 |
|           | 30        | 0.13    |                 |
|           | 35        | 0.13    |                 |
|           | 40        | 0.13    |                 |
| 70        | 20        | 0.17    | 15%             |
|           | 25        | 0.16    |                 |
|           | 30        | 0.15    |                 |
|           | 35        | 0.15    |                 |
|           | 40        | 0.14    |                 |
| 80        | 20        | 0.16    |                 |
|           | 25        | 0.15    |                 |
|           | 30        | 0.15    |                 |
|           | 35        | 0.14    |                 |
|           | 40        | 0.14    |                 |
| 90        | 20        | 0.15    |                 |
|           | 25        | 0.15    |                 |
|           | 30        | 0.14    |                 |
|           | 35        | 0.14    |                 |
|           | 40        | 0.13    |                 |
| 100       | 20        | 0.15    |                 |
|           | 25        | 0.14    |                 |
|           | 30        | 0.14    |                 |
|           | 35        | 0.13    |                 |
|           | 40        | 0.13    |                 |

# Delta 3 Pre-insulated Wall Panel U Values

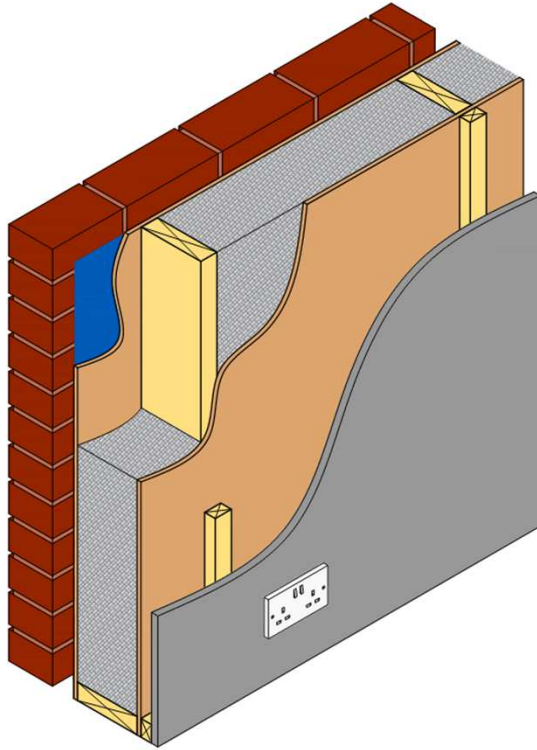


Lightweight Cladding

2 (2)

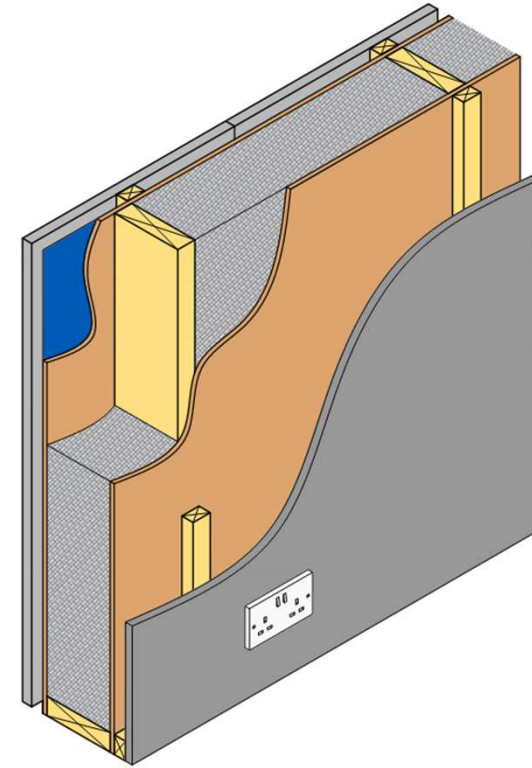
| Frame PIR | PIR Liner | U-Value | Bridging Factor |
|-----------|-----------|---------|-----------------|
| 70        | 20        | 0.18    | 12.5%           |
|           | 25        | 0.17    |                 |
|           | 30        | 0.16    |                 |
|           | 35        | 0.16    |                 |
|           | 40        | 0.15    |                 |
| 80        | 20        | 0.17    |                 |
|           | 25        | 0.16    |                 |
|           | 30        | 0.16    |                 |
|           | 35        | 0.15    |                 |
|           | 40        | 0.15    |                 |
| 90        | 20        | 0.16    |                 |
|           | 25        | 0.16    |                 |
|           | 30        | 0.15    |                 |
|           | 35        | 0.14    |                 |
|           | 40        | 0.14    |                 |
| 100       | 20        | 0.15    |                 |
|           | 25        | 0.15    |                 |
|           | 30        | 0.14    |                 |
|           | 35        | 0.14    |                 |
|           | 40        | 0.13    |                 |
| 70        | 20        | 0.18    | 15%             |
|           | 25        | 0.17    |                 |
|           | 30        | 0.15    |                 |
|           | 35        | 0.16    |                 |
|           | 40        | 0.16    |                 |
| 80        | 20        | 0.17    |                 |
|           | 25        | 0.17    |                 |
|           | 30        | 0.16    |                 |
|           | 35        | 0.15    |                 |
|           | 40        | 0.15    |                 |
| 90        | 20        | 0.17    |                 |
|           | 25        | 0.16    |                 |
|           | 30        | 0.15    |                 |
|           | 35        | 0.15    |                 |
|           | 40        | 0.14    |                 |
| 100       | 20        | 0.16    |                 |
|           | 25        | 0.15    |                 |
|           | 30        | 0.15    |                 |
|           | 35        | 0.14    |                 |
|           | 40        | 0.14    |                 |

# Sigma II 140 - Closed Wall Panel U Values



Masonry Cladding

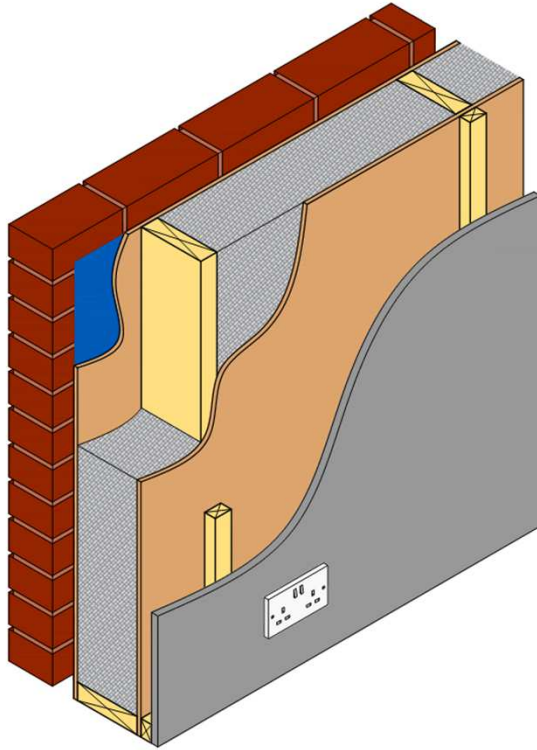
| Frame Insulation $\lambda$ | U-Value |
|----------------------------|---------|
| 0.033                      | 0.19    |



Lightweight Cladding

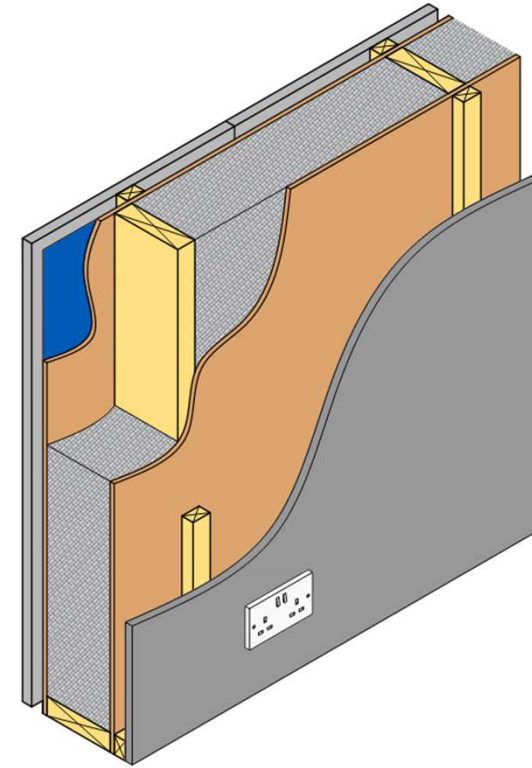
| Frame Insulation $\lambda$ | U-Value |
|----------------------------|---------|
| 0.033                      | 0.21    |

# Sigma II 184 - Closed Wall Panel U Values



Masonry Cladding

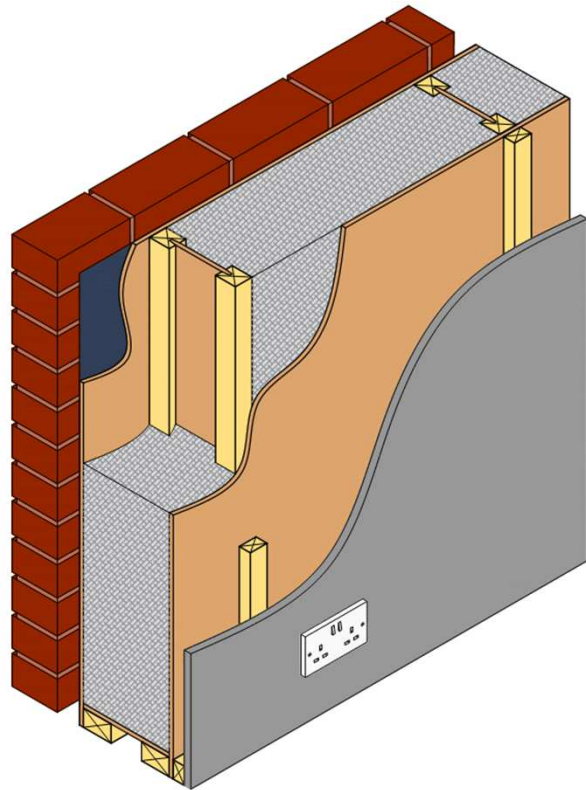
| Frame Insulation $\lambda$ | U-Value |
|----------------------------|---------|
| 0.033                      | 0.16    |



Lightweight Cladding

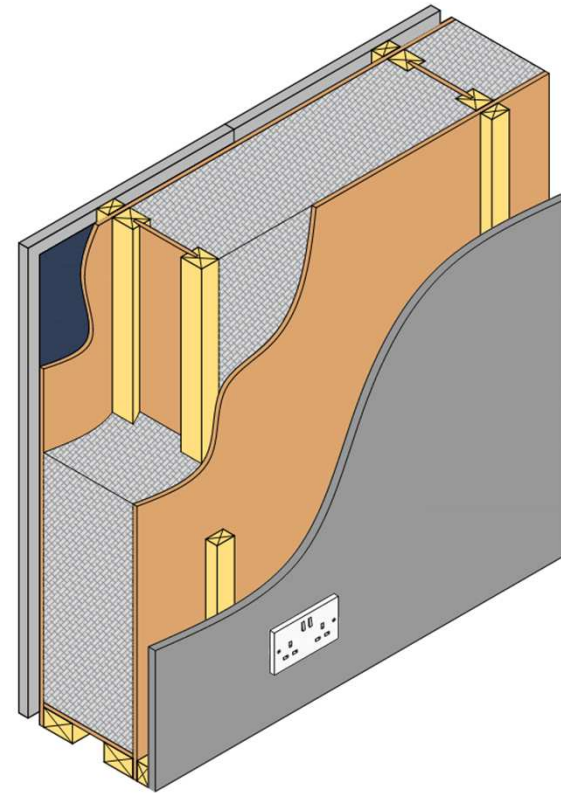
| Frame Insulation $\lambda$ | U-Value |
|----------------------------|---------|
| 0.033                      | 0.17    |

# Sigma II 195 - Closed Wall Panel U Values



Masonry Cladding

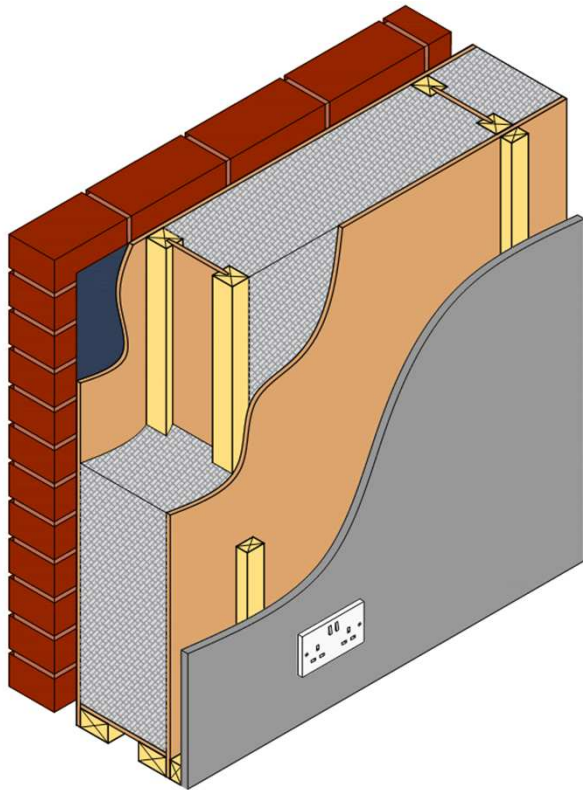
| Frame Insulation $\lambda$ | U-Value     |
|----------------------------|-------------|
| 0.033                      | <b>0.14</b> |



Lightweight Cladding

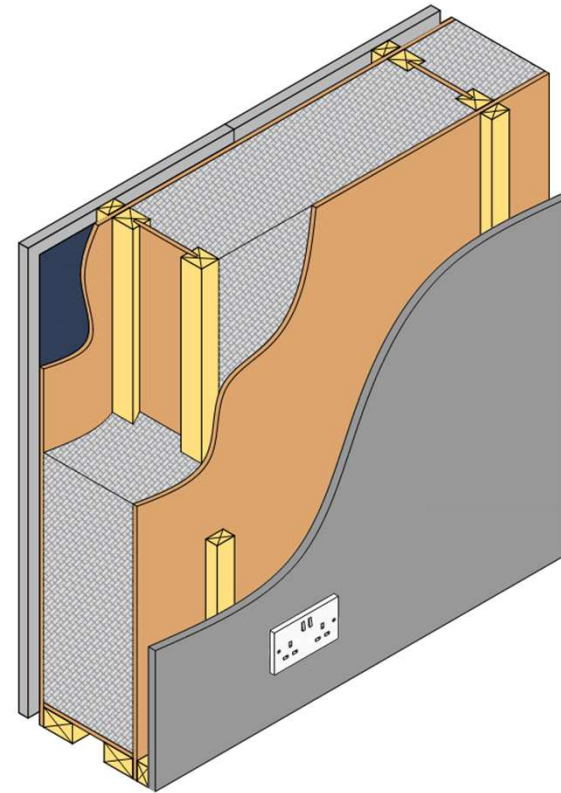
| Frame Insulation $\lambda$ | U-Value     |
|----------------------------|-------------|
| 0.033                      | <b>0.15</b> |

# Sigma II 235 - Closed Wall Panel U Values



Masonry Cladding

| Frame Insulation $\lambda$ | U-Value |
|----------------------------|---------|
| 0.033                      | 0.12    |



Lightweight Cladding

| Frame Insulation $\lambda$ | U-Value |
|----------------------------|---------|
| 0.033                      | 0.13    |