

Table 8.2  
Elastic thickness estimates from Mars

| N  | Type     | Feature                         | $T_e$    | $T_e$ range | Reference               |
|----|----------|---------------------------------|----------|-------------|-------------------------|
| 1  | P        | Isidis                          | 200-300? | >120        | Comer et al. (1995)     |
| 2  | MaV      | Elsyium Mons                    | 54       | 48-110      | Comer et al. (1995)     |
| 3  | MaV      | Olympus Mons                    | 200?     | >150        | Comer et al. (1995)     |
| 4  | MaV      | Alba Patera                     | 33       | 19-85       | Comer et al. (1995)     |
| 5  | MaV      | Ascraeus Mons                   | 22       | 8-50        | Comer et al. (1995)     |
| 6  | MaV      | Pavonis Mons                    | 26       | 10-50       | Comer et al. (1995)     |
| 7  | MaV      | Arsia Mons                      | 18       | 10-50       | Comer et al. (1995)     |
| 8  | P        | Southern Highlands <sup>1</sup> | 10       | 0-20        | Zuber et al. (2000)     |
| 9  | MaV      | Alba Patera                     | 50       |             | Zuber et al. (2000)     |
| 10 | MaV      | Olympus Mons                    |          | >100        | Zuber et al. (2000)     |
| 11 | P        | Utopia                          | 100      |             | Zuber et al. (2000)     |
| 12 | P        | Southern Highlands <sup>1</sup> | 61       | 50-60       | Nimmo (2002)            |
| 13 | R        | Elysium rise                    |          | 15-45       | McGovern et al. (2004)  |
| 14 | MaV      | Olympus Mons                    |          | >70         | McGovern et al. (2004)  |
| 15 | MaV      | Alba Patera                     | 51.5     | 38-65       | McGovern et al. (2004)  |
| 16 | MaV      | Ascraeus Mons                   |          | 2-80        | McGovern et al. (2004)  |
| 17 | MaV      | Pavonis Mons                    |          | <100        | McGovern et al. (2004)  |
| 18 | MaV      | Arsia Mons                      |          | >20         | McGovern et al. (2004)  |
| 19 | R        | Elsyium rise                    | 56       | 36-76       | Belleguic et al. (2005) |
| 20 | MaV      | Olympus Mons                    | 93       | 53-133      | Belleguic et al. (2005) |
| 21 | MaV      | Alba Patera                     | 66       | 46-86       | Belleguic et al. (2005) |
| 22 | MaV      | Ascraeus Mons                   | 105      | 65-145      | Belleguic et al. (2005) |
| 23 | MaV      | Pavonis Mons                    | >50      | 2-80        | Belleguic et al. (2005) |
| 24 | MaV      | Arsia Mons                      | <35      | >20         | Belleguic et al. (2005) |
| 25 | Footwall | Valles Marineris                | 200      |             | Dohm et al. (2009)      |
| 26 | Footwall | Valles Marineris                | 200      |             | Dohm et al. (2009)      |
| 27 | MaV      | Olympus Mons                    |          | >110        | Beuthe et al. (2012)    |
| 29 | MaV      | Ascraeus Mons                   | 40       | 20-60       | Beuthe et al. (2012)    |
| 30 | MaV      | Arsia Mons                      |          | <10         | Beuthe et al. (2012)    |
| 31 | P        | Elysium                         |          | <30         | Beuthe et al. (2012)    |
| 32 | MaV      | Alba Patera                     | 0        |             | Beuthe et al. (2012)    |
| 33 | MaV      | Elsyium Mons                    | 15       | <55         | Ding et al. (2019)      |
| 34 | MaV      | Olympus Mons                    | 300      | >105        | Ding et al. (2019)      |
| 35 | MaV      | Alba Patera                     | 75       | 60-210      | Ding et al. (2019)      |
| 36 | MaV      | Ascraeus Mons                   | 95       | >90         | Ding et al. (2019)      |
| 37 | MaV      | Pavonis Mons                    | 175      |             | Ding et al. (2019)      |
| 38 | MaV      | Arsia Mons                      | 10       | <15         | Ding et al. (2019)      |
| 39 | P        | Utopia                          | 30       | <50         | Ding et al. (2019)      |
| 40 | P        | Argyre                          | 90       | 50-130      | Ding et al. (2019)      |
| 41 | P        | Isdis                           | 300      | >100        | Ding et al. (2019)      |

MaM = Basin fill load, MaV = volcano load, P = Planitia impact basin, R = Topographic Rise

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<sup>1</sup> Includes Hellas Planitia