Supplement Table Parameters used for the biophysical analysis.

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| --- | --- | --- | --- | --- | --- |
| **Physical** | **Symbol** | **Value** | **Unit** | **Equation** | **Source** |
| Air speed | vair | 0.2 | m/s |  | Exp. |
| Lewis relation | LR | 16.5 | K/kPa |  | (28) |
| Latent heat of sweat | LH2O | 2430 | J/g |  | (29) |
| Convective heat transfer coefficient | hc | 3.2 | Wm-2K-1 | hc = 8.3· vair0.6 | (28) |
| Radiative heat transfer coefficient | hr | 4.7 | Wm-2K-1 |  | (28) |
| Evaporative heat transfer coefficient | he | 52.1 | Wm-2kPa-1 | he = hc · LR | (28) |

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| --- | --- | --- | --- | --- | --- |
| **Clothing** | **Symbol** | **Value** | **Unit** | **Equation** | **Source** |
| Vapour permeability index static | im\_st | 0.42 | - |  | ISO 9920 |
| Intrinsic clothing insulation | Icl | 0.056 | m2KW-1 |  | ISO 9920 |
| Air insulation | Iair | 0.127 | m2KW-1 | Iair =1/(hc + hr) | (28) |
| Clothing area factor | fcl | 1.11 | - | fcl =1+1.97· Icl | (28) |
| Total static insulation | IT | 0.17 | m2KW-1 | IT= Icl+ Iair/ fcl | (28) |
| Total dynamic insulation | IT,dyn | 0.157 t=60 | m2KW-1 |  | (28) |
| Vapour permeability index dynamic | im\_dyn | 0.50 t=60 | - |  | (28) |
| Total dynamic evaporative resistance | RT,dyn | 0.019 t=60 |  |  | (28) |