|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **矩形容器顶板计算** | | 计算单位 |  | | |
| 计算所依据的标准 | | | **NB/T 47003.1-2009** | | |
| **计 算 条 件** | | | **顶 板 简 图** | | |
| 设计温度, t | ℃ | **$$001** | $05  $07  $06 | | |
| 材料标准号 | **$$002** | |
| 材料牌号/名称 | **$$003** | |
| 腐蚀裕量, C2 | mm | **$$004** |
| 名义厚度, δn | mm | **$$005** |
| 板长, L | mm | **$$006** |
| 板宽, W | mm | **$$007** |
| **材 料 特 性** | | | | | |
| 密度, ρ0 | kg/m³ | **$$008** | 设计温度许用应力, [σ]t | MPa | **$$010** |
| 材料负偏差, C1 | mm | **$$009** | 设计温度下弹性模量, Et | 103×MPa | **$$011** |
| **过 程 参 数** | | | | | |
| 密度, ρm | kg/mm3 | ρm = ρ0 ×10-9 | | | **$$012** |
| 重力加速度, g | m/s2 | g = 9.81 | | | **9.81** |
| 附加载荷, Pa | MPa | Pa = 1.2×10-3 | | | **1.2×10-3** |
| 厚度附加量, C | mm | C = C1 + C2 | | | **$$015** |
| 有效厚度, δe | mm | δe = δn - C | | | **$$016** |
| 边长比, W/L | / | W/L | | | **$$019** |
| 应力计算系数, α | / | 以 W/L 查图 8-15 | | | **$$020** |
| 挠度计算系数, β | / | 以 W/L 查图 8-15 | | | **$$021** |
| **厚 度 计 算 及 校 核** | | | | | |
| 顶板计算厚度, δc | mm |  | | | **$$022** |
| 设计厚度, δd | mm | δd = δc + C2 | | | **$$023** |
| 厚度校核 | / | δn ≥ δd + C1 | | | **$$024** |
| **挠 度 计 算 及 校 核** | | | | | |
| 顶板许用挠度, [f] | mm |  | | | **$$025** |
| 顶板最大挠度, fT,max | mm |  | | | **$$026** |
| 挠度校核 | / | fT,max ≤ [f] | | | **$$027** |

注：顶板的计算只考虑自重和附加载荷 Pa = 1.2kPa。