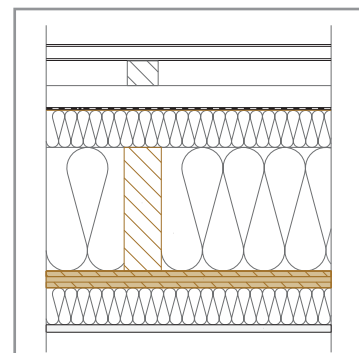




3

EN Roofs

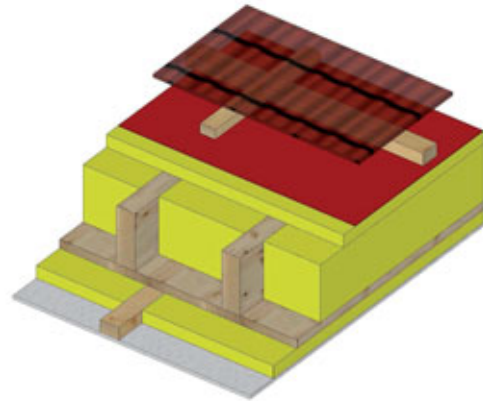
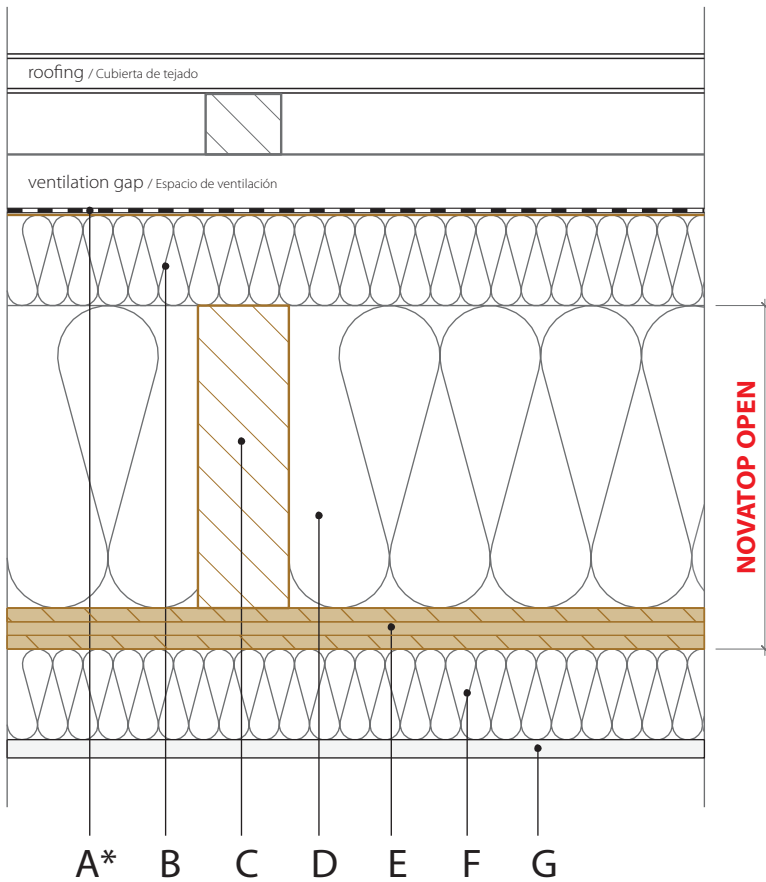
ES Tejados



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NOVATOP

ROOF COMPOSITION / Estructura del tejado



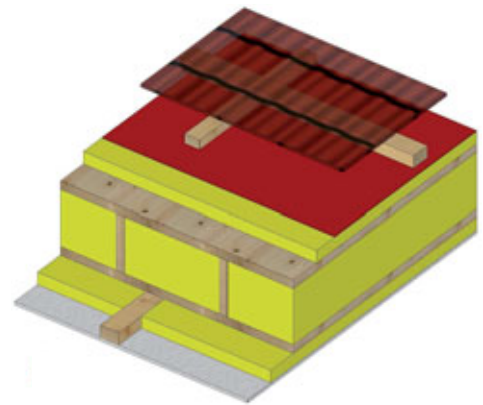
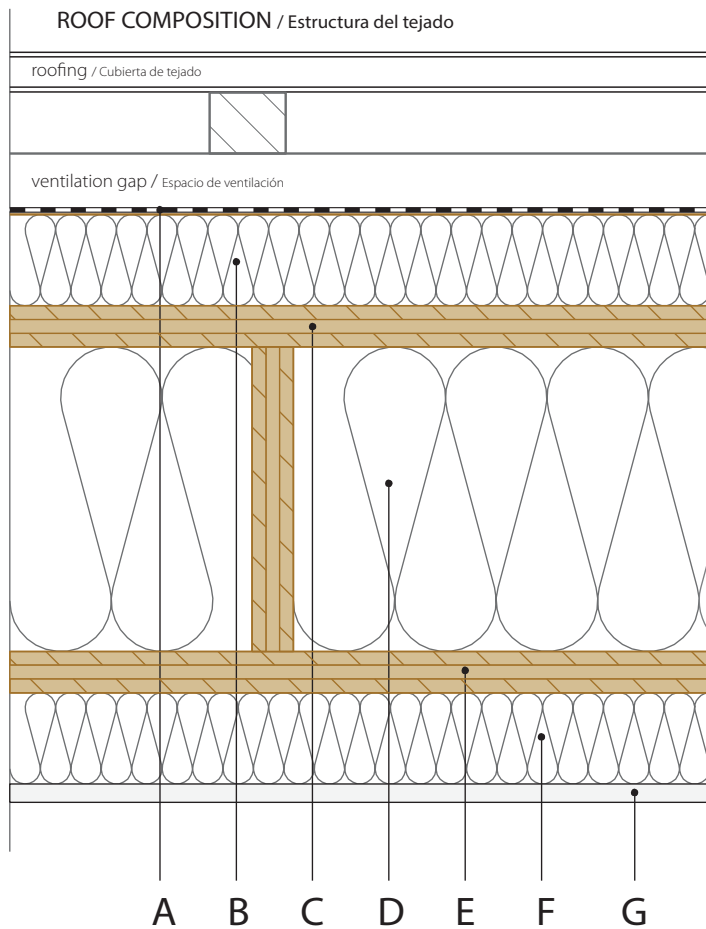
* BREATHER MEMBRANE CAN BE REPLACED WITH A DIFFUSION WOOD FIBREBOARD, FOR EXAMPLE (DHF, TCP)
 / Se puede sustituir láminas de difusión por tablero de fibra de madera de difusión, por ejemplo (DHF, TCP)

| R 300 | | no./ No | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | |
|--|---|--|----------|----------|--------------|------|---------|-------|-----------|-----|-----|
| Dimensions [mm] / Dimensiones | Roof breather membrane (sd = cca 0,02 m) / Láminas de difusión del tejado | A | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | |
| | Steico Therm ($\lambda = 0,041 \text{ W/mK}$, $q = 160 \text{ kg/m}^3$) | B | | | 40 | 40 | 60 | 80 | 120 | 160 | |
| | NOVATOP OPEN | KVH (BSH, DUO, TRIO) rafters | C | 200 | 200 | 200 | 200 | 240 | 240 | 240 | 280 |
| | | Steico Flex ($\lambda = 0,040 \text{ W/mK}$, $q = 50 \text{ kg/m}^3$) | D | 200 | 200 | 200 | 200 | 240 | 240 | 240 | 280 |
| | | Bottom board / Tablero inferior | E | 27 | 27 | 27 | 27 | 27 | 27 | 27 | 27 |
| | Mineral insulation ($\lambda = 0,040 \text{ W/mK}$, $q = 50 \text{ kg/m}^3$) / Aislamiento mineral | F | | 40 | | 40 | | 40 | 80 | 120 | |
| | Gypsum fibreboard (FERMACELL) / Tablón de yeso-fibra | G | | 12 | | 12 | | 12 | 12 | 12 | |
| | Total thickness of the structure / Espesor total de la estructura | Σ | 227 | 279 | 267 | 319 | 327 | 399 | 479 | 599 | |
| Fire resistance (determined by computing) / Resistencia al fuego (determinado por cálculo) | REI [min] | 30 | 45 | 30 | 45 | 30 | 45 | 45 | 45 | | |
| Overall heat transfer coefficient / Coeficiente total de transmisión de calor | U [W/m ² K] | 0,24 | 0,20 | 0,19 | 0,16 | 0,15 | 0,13 | 0,10 | 0,08 | | |
| Use of the structure / Empleo de la estructura | | standard | standard | standard | standard TOP | NED | NED TOP | PASIV | PASIV TOP | | |

Note: the use of the 'floor/roof/wall' make up needs to be individually assessed in terms of building physics.
 Nota: Empleo de esta estructura requiere una recensión individual desde el punto de vista de la física de construcción.

MONOPITCHED AND DUOPITCHED ROOF – NOVATOP OPEN
 Tejado de plano inclinado y tejado de mediagua – NOVATOP OPEN

R 300



| R 301 | | no./ No | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | |
|--|---|--|----------|----------|--------------|-------|---------|-------|-----------|-----|-----|
| Dimensiones [mm] / Dimensiones | Roof breather membrane (sd = cca 0,02 m) / Láminas de difusión del tejado | A | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | |
| | Steico Therm ($\lambda = 0,041 \text{ W/mK}$, $q = 160 \text{ kg/m}^3$) | B | | | 40 | 40 | 80 | 100 | 160 | 160 | |
| | NOVATOP ELEMENT | Top board / Tablero superior | C | 27 | 27 | 27 | 27 | 27 | 27 | 27 | 27 |
| | | Steico Flex ($\lambda = 0,040 \text{ W/mK}$, $q = 50 \text{ kg/m}^3$) | D | 186 | 146 | 146 | 186 | 186 | 186 | 186 | 226 |
| | | Bottom board / Tablero inferior | E | 27 | 27 | 27 | 27 | 27 | 27 | 27 | 27 |
| | Mineral insulation ($\lambda = 0,040 \text{ W/mK}$, $q = 50 \text{ kg/m}^3$) / Aislamiento mineral | F | | 30 | | 40 | | 40 | 60 | 120 | |
| | Gypsum fibreboard (FERMACELL) / Tablón de yeso-fibra | G | | 12 | | 12 | | 12 | 12 | 12 | |
| | Total thickness of the structure / Espesor total de la estructura | Σ | 240 | 242 | 240 | 332 | 320 | 392 | 472 | 572 | |
| Fire resistance (determined by computing) / Resistencia al fuego (determinado por cálculo) | REI [min] | 30 | 45 | 30 | 45 | 30 | 45 | 45 | 45 | | |
| Overall heat transfer coefficient / Coeficiente total de transmisión de calor | U [W/m ² K] | 0,23 | 0,24 | 0,22 | 0,16 | 0,15 | 0,13 | 0,10 | 0,08 | | |
| The annual amount of condensed water vapour ($M_{c,a} = \text{max. } 0,5 \text{ kg/m}^2 \cdot \text{year}$) Cantidad anual de vapor de agua condensado ($M_{c,a} = \text{máx. } 0,5 \text{ kg/m}^2 \cdot \text{Año}$) | $M_{c,a}$ [kg/m ² ·year] | 0,188 | 0,187 | 0,075 | 0,109 | 0,040 | 0,035 | 0,011 | 0,027 | | |
| The annual amount of vaporable water vapour ($M_{ev,a} < M_{ev,a}$) Cantidad anual de vapor de agua evaporable ($M_{ev,a} < M_{ev,a}$) | $M_{ev,a}$ [kg/m ² ·year] | 0,223 | 0,225 | 0,304 | 0,271 | 0,351 | 0,354 | 0,423 | 0,354 | | |
| Use of the structure / Empleo de la estructura | | standard | standard | standard | standard TOP | NED | NED TOP | PASIV | PASIV TOP | | |

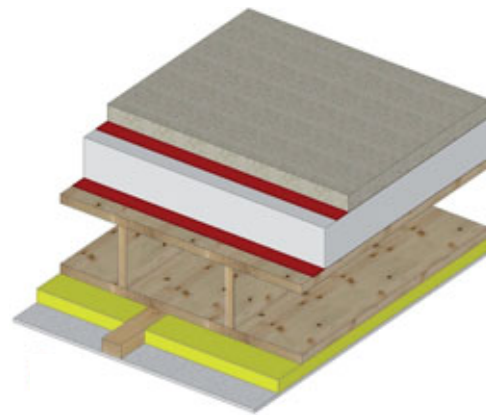
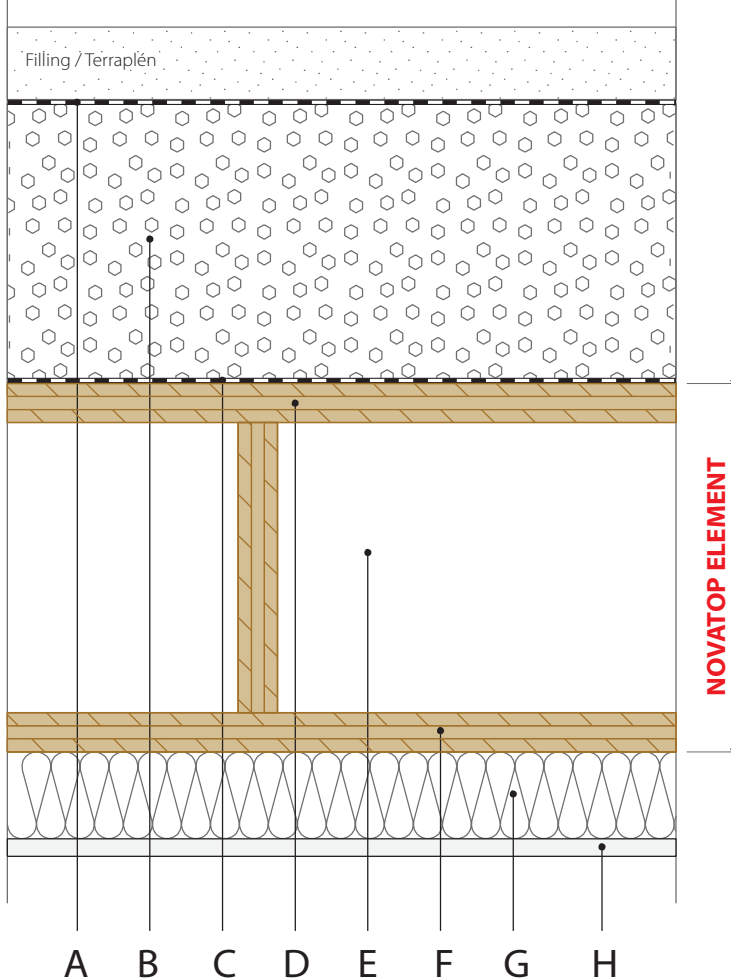
Note: the use of the 'floor/roof/wall' ELEMENT is determined by the individual needs of the building project.

Nota: Empleo de esta estructura requiere una recensión individual desde el punto de vista de la física de construcción.

R 301

Monopitched and duopitched roof - NOVATOP ELEMENT
Tejado de plano inclinado y tejado de mediagua – NOVATOP ELEMENT

ROOF COMPOSITION / Estructura del tejado



| R 302 | | no./ No | 1 | 2 | 3 | 4 | 5 | 6 | |
|--|---|---------------------------------|--------------|------|---------|-------|-----------|-----|-----|
| Dimensions [mm] / Dimensiones | PVC hydro insulation membrane / Impermeabilización de PVC | A | 2 | 2 | 2 | 2 | 2 | 2 | |
| | Thermal insulation EPS ($\lambda = 0,037 \text{ W/mK}$, $q = 15 \text{ kg/m}^3$) / Aislamiento térmico | B | 140 | 180 | 220 | 220 | 280 | 360 | |
| | Damp proof membrane ($sd > 1500 \text{ m}$) / Hoja de difusión impermeable | C | 3 | 3 | 3 | 3 | 3 | 3 | |
| | NOVATOP ELEMENT | Top board / Tablero superior | D | 27 | 27 | 27 | 27 | 27 | 27 |
| | | Air gap / Espacio de aire | E | 146 | 146 | 146 | 146 | 146 | 146 |
| | | Bottom board / Tablero inferior | F | 27 | 27 | 27 | 27 | 27 | 27 |
| | Mineral insulation ($\lambda = 0,040 \text{ W/mK}$, $q = 50 \text{ kg/m}^3$) / Aislamiento mineral | G | | 30* | | 40 | 60 | 80 | |
| | Gypsum fibreboard (FERMACELL) / Tablón de yeso-fibra | H | | 12 | | 12 | 12 | 12 | |
| Total thickness of the structure / Espesor total de la estructura | Σ | 345 | 427 | 425 | 507 | 557 | 687 | | |
| Fire resistance (determined by computing) / Resistencia al fuego (determinado por cálculo) | REI [min] | 30 | 45 | 30 | 45 | 45 | 45 | | |
| Overall heat transfer coefficient / Coeficiente total de transmisión de calor | U [W/m ² K] | 0,22 | 0,17 | 0,15 | 0,13 | 0,10 | 0,08 | | |
| Use of the structure / Empleo de la estructura | | standard | standard TOP | NED | NED TOP | PASIV | PASIV TOP | | |

Note: the use of the 'floor/roof/wall' ELEMENT is determined by the individual needs of the building project.

* AIR GAP / Espacio de aire

Nota: Empleo de esta estructura requiere una recensión individual desde el punto de vista de la física de construcción.

FLAT ROOF - NOVATOP ELEMENT
Tejado plano - NOVATOP ELEMENT

R 302