

# Świąteczne

- Gravity **18 BLG**
- ABV **7.7 %**
- IBU **37**
- SRM **34.4**

## Batch size

- Expected quantity of finished beer **10 liter(s)**
- Trub loss **5 %**
- Size with trub loss **10.5 liter(s)**
- Boil time **25 min**
- Evaporation rate **10 %/h**
- Boil size **12 liter(s)**

## Mash information

- Mash efficiency **70 %**
- Liquor-to-grist ratio **2.5 liter(s) / kg**
- Mash size **10 liter(s)**
- Total mash volume **14 liter(s)**

## Fermentables

| Type  | Name                        | Amount         | Yield | EBC  |
|-------|-----------------------------|----------------|-------|------|
| Grain | Viking Pale Ale malt        | 2 kg (50%)     | 80 %  | 5    |
| Grain | Płatki owsiane              | 0.4 kg (10%)   | 85 %  | 3    |
| Grain | Strzegom Monachijski typ II | 0.7 kg (17.5%) | 79 %  | 22   |
| Grain | Strzegom Karmel 150         | 0.7 kg (17.5%) | 75 %  | 150  |
| Grain | Jęczmień palony             | 0.1 kg (2.5%)  | 55 %  | 985  |
| Grain | Strzegom Czekoladowy ciemny | 0.1 kg (2.5%)  | 68 %  | 1200 |

## Hops

| Use for | Name            | Amount | Time   | Alpha acid |
|---------|-----------------|--------|--------|------------|
| Boil    | Warrior         | 12 g   | 60 min | 15.5 %     |
| Boil    | Saaz (USA)      | 15 g   | 5 min  | 3.75 %     |
| Boil    | Styrian Golding | 15 g   | 5 min  | 3.6 %      |

## Yeasts

| Name        | Type | Form  | Amount | Laboratory |
|-------------|------|-------|--------|------------|
| Safale S-04 | Ale  | Slant | 100 ml | Safale     |

## Extras

| Type  | Name                     | Amount | Use for | Time  |
|-------|--------------------------|--------|---------|-------|
| Spice | Imbir                    | 50 g   | Boil    | 5 min |
| Spice | Cynamon                  | 40 g   | Boil    | 5 min |
| Spice | Skórka pomarańczy (szt.) | 2 g    | Boil    | 5 min |
| Spice | Goździk (szt.)           | 15 g   | Boil    | 5 min |
| Spice | Kardamon (szt.)          | 1 g    | Boil    | 5 min |

|       |      |     |      |       |
|-------|------|-----|------|-------|
| Spice | Anyż | 1 g | Boil | 5 min |
|-------|------|-----|------|-------|