

# ŚWIĄTECZNE 2016

- Gravity **16.1 BLG**
- ABV ---
- IBU **33**
- SRM **31.3**
- Style **Christmas/Winter Specialty Spiced Beer**

## Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **23.3 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **18.4 liter(s)**
- Total mash volume **24.5 liter(s)**

## Steps

- Temp **66 C**, Time **60 min**

## Mash step by step

- Heat up **18.4 liter(s)** of strike water to **73.7C**
- Add grains
- Keep mash **60 min** at **66C**
- Sparge using **11 liter(s)** of **76C** water or to achieve **23.3 liter(s)** of wort

## Fermentables

| Type  | Name                       | Amount        | Yield | EBC |
|-------|----------------------------|---------------|-------|-----|
| Grain | Strzegom Pale Ale          | 5 kg (81.7%)  | 79 %  | 6   |
| Grain | Pilzneński                 | 0.5 kg (8.2%) | 81 %  | 4   |
| Grain | Strzegom Czekoladowy jasny | 0.5 kg (8.2%) | 68 %  | 400 |
| Grain | Jęczmień palony            | 0.12 kg (2%)  | 55 %  | 985 |

## Hops

| Use for | Name    | Amount | Time   | Alpha acid |
|---------|---------|--------|--------|------------|
| Boil    | Marynka | 20 g   | 60 min | 10 %       |
| Boil    | Marynka | 30 g   | 10 min | 10 %       |

## Yeasts

| Name         | Type | Form  | Amount | Laboratory |
|--------------|------|-------|--------|------------|
| Safale US-05 | Ale  | Slant | 400 ml | Fermentis  |

## Extras

| Type  | Name               | Amount | Use for | Time   |
|-------|--------------------|--------|---------|--------|
| Spice | cukier biały       | 500 g  | Boil    | 10 min |
| Spice | cynamon            | 8 g    | Boil    | 10 min |
| Spice | gałka muszkatołowa | 7 g    | Boil    | 10 min |

|       |                                 |       |      |        |
|-------|---------------------------------|-------|------|--------|
| Spice | śliwki suszone                  | 200 g | Boil | 10 min |
| Spice | goździki (szt)                  | 14 g  | Boil | 10 min |
| Spice | skórka świeżej pomarańczy (szt) | 3 g   | Boil | 10 min |