

# Świąteczne

- Gravity **16.4 BLG**
- ABV **6.9 %**
- IBU **16**
- SRM **27.9**
- Style **Christmas/Winter Specialty Spiced Beer**

## Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21.2 liter(s)**
- Boil time **60 min**
- Evaporation rate **15 %/h**
- Boil size **27.8 liter(s)**

## Mash information

- Mash efficiency **83 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **19.2 liter(s)**
- Total mash volume **25.6 liter(s)**

## Steps

- Temp **52 C**, Time **10 min**
- Temp **66 C**, Time **50 min**
- Temp **72 C**, Time **10 min**
- Temp **78 C**, Time **1 min**

## Mash step by step

- Heat up **19.2 liter(s)** of strike water to **57.3C**
- Add grains
- Keep mash **10 min** at **52C**
- Keep mash **50 min** at **66C**
- Keep mash **10 min** at **72C**
- Keep mash **1 min** at **78C**
- Sparge using **15 liter(s)** of **76C** water or to achieve **27.8 liter(s)** of wort

## Fermentables

| Type  | Name                       | Amount        | Yield | EBC  |
|-------|----------------------------|---------------|-------|------|
| Grain | Strzegom Pilzneński        | 4 kg (62.5%)  | 80 %  | 4    |
| Grain | Strzegom Monachijski typ I | 1 kg (15.6%)  | 79 %  | 16   |
| Grain | Strzegom Karmel 150        | 0.2 kg (3.1%) | 75 %  | 150  |
| Grain | Strzegom Karmel 300        | 0.2 kg (3.1%) | 70 %  | 299  |
| Grain | Strzegom Czekoladowy jasny | 0.4 kg (6.2%) | 68 %  | 400  |
| Grain | Strzegom Barwiący          | 0.2 kg (3.1%) | 68 %  | 1300 |
| Grain | Płatki owsiane             | 0.4 kg (6.2%) | 85 %  | 3    |

## Hops

| Use for | Name              | Amount | Time   | Alpha acid |
|---------|-------------------|--------|--------|------------|
| Boil    | Lublin (Lubelski) | 50 g   | 30 min | 4 %        |
| Boil    | Willamette        | 15 g   | 10 min | 5.2 %      |

## Yeasts

| Name        | Type | Form | Amount | Laboratory |
|-------------|------|------|--------|------------|
| Safale S-04 | Ale  | Dry  | 11.5 g | Safale     |

### Extras

| Type  | Name                     | Amount | Use for | Time   |
|-------|--------------------------|--------|---------|--------|
| Spice | Przyprawa do<br>piernika | 70 g   | Boil    | 10 min |