

# Świąteczne

- Gravity **16.8 BLG**
- ABV **7.1 %**
- IBU **20**
- SRM **22.9**
- Style **Christmas/Winter Specialty Spiced Beer**

## Batch size

- Expected quantity of finished beer **25 liter(s)**
- Trub loss **5 %**
- Size with trub loss **26.3 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **31.7 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **23.5 liter(s)**
- Total mash volume **31.3 liter(s)**

## Steps

- Temp **64 C**, Time **40 min**
- Temp **74 C**, Time **20 min**
- Temp **78 C**, Time **0 min**

## Mash step by step

- Heat up **23.5 liter(s)** of strike water to **71.3C**
- Add grains
- Keep mash **40 min** at **64C**
- Keep mash **20 min** at **74C**
- Keep mash **0 min** at **78C**
- Sparge using **16 liter(s)** of **76C** water or to achieve **31.7 liter(s)** of wort

## Fermentables

| Type  | Name                     | Amount         | Yield | EBC |
|-------|--------------------------|----------------|-------|-----|
| Grain | Pilznieski               | 5.5 kg (66.1%) | --- % | 4   |
| Grain | Strzegom Pszeniczny      | 1 kg (12%)     | 81 %  | 6   |
| Grain | Caraaroma                | 0.3 kg (3.6%)  | 78 %  | 400 |
| Grain | Carafa 1                 | 0.2 kg (2.4%)  | 70 %  | 664 |
| Grain | Jęczmień palony          | 0.12 kg (1.4%) | 55 %  | 985 |
| Grain | Strzegom Czekoladowy 400 | 0.2 kg (2.4%)  | 68 %  | 400 |
| Grain | Płatki owsiane           | 0.5 kg (6%)    | 85 %  | 3   |
| Sugar | Cukier trzcinowy         | 0.5 kg (6%)    | --- % | --- |

## Hops

| Use for | Name     | Amount | Time   | Alpha acid |
|---------|----------|--------|--------|------------|
| Boil    | Puławski | 30 g   | 60 min | 8.9 %      |

## Yeasts

| Name        | Type | Form | Amount | Laboratory |
|-------------|------|------|--------|------------|
| SafAle t-58 | Ale  | Dry  | 11.5 g | Fermentis  |

## Extras

| Type   | Name              | Amount | Use for | Time   |
|--------|-------------------|--------|---------|--------|
| Spice  | Cynamon cięty     | 20 g   | Boil    | 10 min |
| Flavor | Korzeń lukrecji   | 40 g   | Boil    | 10 min |
| Flavor | Skórka pomarańczy | 300 g  | Boil    | 10 min |
| Flavor | Śliwki suszone    | 200 g  | Boil    | 10 min |
| Flavor | Trawa cytrynowa   | 10 g   | Boil    | 10 min |

## Notes

- Dodatkowo  
4 goździki na 10 min przed końcem  
1 laska cynamonu również 10 min przed końcem  
Skórka pomarańczy - z trzech sztuk  
*Dec 18, 2018, 10:52 AM*