

Świąteczne

- Gravity **21.3 BLG**
- ABV ---
- IBU **48**
- SRM **40**
- Style **Christmas/Winter Specialty Spiced Beer**

Batch size

- Expected quantity of finished beer **15 liter(s)**
- Trub loss **5 %**
- Size with trub loss **15.8 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **19 liter(s)**

Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **14.7 liter(s)**
- Total mash volume **19.6 liter(s)**

Steps

- Temp **67 C**, Time **60 min**
- Temp **72 C**, Time **10 min**
- Temp **78 C**, Time **0 min**

Mash step by step

- Heat up **14.7 liter(s)** of strike water to **74.8C**
- Add grains
- Keep mash **60 min** at **67C**
- Keep mash **10 min** at **72C**
- Keep mash **0 min** at **78C**
- Sparge using **9.2 liter(s)** of **76C** water or to achieve **19 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|----------------|-----------------------------|----------------|--------|------|
| Grain | Strzegom Pale Ale | 4.5 kg (76.9%) | 79 % | 6 |
| Grain | Strzegom Karmel 600 | 0.2 kg (3.4%) | 68 % | 601 |
| Grain | Jęczmień palony | 0.1 kg (1.7%) | 55 % | 985 |
| Grain | Strzegom Czekoladowy ciemny | 0.1 kg (1.7%) | 68 % | 1200 |
| Sugar | Candi Sugar, Dark | 0.25 kg (4.3%) | 78.3 % | 542 |
| Liquid Extract | Honey | 0.7 kg (12%) | 75 % | 2 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|-------------------|--------|--------|------------|
| Boil | Marynka | 35 g | 60 min | 10 % |
| Boil | Lublin (Lubelski) | 40 g | 15 min | 4 % |

Yeasts

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

Extras

Recipe has been printed via **BREWNESS.com** - a complex online solution for homebrewers to track brewing process easily.

| Type | Name | Amount | Use for | Time |
|--------|----------------------|--------|---------|--------|
| Flavor | wanilia | 3 g | Boil | 10 min |
| Spice | przyprawa piernikowa | 30 g | Boil | 10 min |
| Flavor | anyż | 1 g | Boil | 10 min |

Notes

- Przyprawa piernikowa składająca się z; pieprz, goździki, kakao, imbir, ziele angielskie, cynamon, kolendra, gałka muszkatołowa. Wanilia 1/2 laski, anyż 1 gwiazdka.
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