

Piwo świąteczne - Christmas Ale

- Gravity **19.6 BLG**
- ABV **8.6 %**
- IBU **36**
- SRM **40.9**
- Style **Christmas/Winter Specialty Spiced Beer**

Batch size

- Expected quantity of finished beer **12 liter(s)**
- Trub loss **10 %**
- Size with trub loss **13.2 liter(s)**
- Boil time **60 min**
- Evaporation rate **15 %/h**
- Boil size **16.6 liter(s)**

Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **17 liter(s)**
- Total mash volume **21.8 liter(s)**

Steps

- Temp **53 C**, Time **15 min**
- Temp **66 C**, Time **50 min**
- Temp **72 C**, Time **20 min**
- Temp **76 C**, Time **5 min**

Mash step by step

- Heat up **17 liter(s)** of strike water to **57.7C**
- Add grains
- Keep mash **15 min** at **53C**
- Keep mash **50 min** at **66C**
- Keep mash **20 min** at **72C**
- Keep mash **5 min** at **76C**
- Sparge using **4.5 liter(s)** of **76C** water or to achieve **16.6 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|----------------------------|----------------|-------|------|
| Grain | Viking Pale Ale malt | 2.5 kg (51.5%) | 80 % | 5 |
| Grain | Viking Munich Malt | 1 kg (20.6%) | 78 % | 18 |
| Grain | Strzegom Karmel 150 | 0.5 kg (10.3%) | 75 % | 150 |
| Grain | Strzegom Karmel 30 | 0.25 kg (5.2%) | 75 % | 30 |
| Grain | Strzegom Czekoladowy jasny | 0.25 kg (5.2%) | 68 % | 400 |
| Grain | Strzegom Barwiący | 0.25 kg (5.2%) | 68 % | 1300 |
| Grain | Strzegom Karmel 300 | 0.1 kg (2.1%) | 70 % | 299 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------------------|---------|--------|--------|------------|
| Boil | Marynka | 15 g | 60 min | 10 % |
| Aroma (end of boil) | Marynka | 20 g | 20 min | 10 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|------------------------|------|------|--------|------------|
| Fermentis Safale US-05 | Ale | Dry | 11.5 g | --- |

Extras

| Type | Name | Amount | Use for | Time |
|--------|--------------------|--------|---------|--------|
| Spice | imbir | 30 g | Boil | 60 min |
| Spice | cynamon | 30 g | Boil | 10 min |
| Spice | gałka muszkatołowa | 5 g | Boil | 10 min |
| Spice | anyż | 7.5 g | Boil | 10 min |
| Spice | goździki | 5 g | Boil | 10 min |
| Spice | kardamon | 5 g | Boil | 10 min |
| Flavor | miód gryczany | 350 g | Boil | 10 min |
| Fining | mech irlandzki | 5 g | Boil | 15 min |