

ŚWIĄTECZNY PIERNIK

- Gravity **14.7 BLG**
- ABV **6.1 %**
- IBU **21**
- SRM **15.9**
- 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 **31.1 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.3 liter(s) / kg**
- Mash size **21.8 liter(s)**
- Total mash volume **28.4 liter(s)**

Steps

- Temp **64 C**, Time **50 min**
- Temp **72 C**, Time **15 min**
- Temp **78 C**, Time **5 min**

Mash step by step

- Heat up **21.8 liter(s)** of strike water to **70.7C**
- Add grains
- Keep mash **50 min** at **64C**
- Keep mash **15 min** at **72C**
- Keep mash **5 min** at **78C**
- Sparge using **15.9 liter(s)** of **76C** water or to achieve **31.1 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|--------------------|---------------|--------|------|
| Grain | Pilzneński | 4 kg (56.3%) | 81 % | 4 |
| Grain | Monachijski typ II | 2 kg (28.2%) | 79 % | 22 |
| Sugar | Laktoza | 0.5 kg (7%) | 76.1 % | 0 |
| Grain | Caramunich 3 | 0.5 kg (7%) | 76 % | 150 |
| Grain | Carafa Special III | 0.1 kg (1.4%) | 70 % | 1400 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|---------------------|--------|--------|------------|
| Boil | Hallertau Tradition | 50 g | 60 min | 5.2 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|-------------|------|------|--------|------------|
| Safale T-58 | Ale | Dry | 11.5 g | Fermentis |

Extras

| Type | Name | Amount | Use for | Time |
|-------|---------|--------|---------|-------|
| Spice | Cynamon | 15 g | Boil | 5 min |

| | | | | |
|-------|----------|------|------|-------|
| Spice | Goździki | 15 g | Boil | 5 min |
| Spice | Kolendra | 15 g | Boil | 5 min |