

Piernikowe

- Gravity **15 BLG**
- ABV ---
- IBU **20**
- SRM **28.8**
- Style **Christmas/Winter Specialty Spiced Beer**

Batch size

- Expected quantity of finished beer **19 liter(s)**
- Trub loss **10 %**
- Size with trub loss **20.9 liter(s)**
- Boil time **70 min**
- Evaporation rate **15 %/h**
- Boil size **24.6 liter(s)**

Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **15.3 liter(s)**
- Total mash volume **20.4 liter(s)**

Steps

- Temp **52 C**, Time **10 min**
- Temp **64 C**, Time **30 min**
- Temp **72 C**, Time **20 min**
- Temp **78 C**, Time **10 min**

Mash step by step

- Heat up **15.3 liter(s)** of strike water to **57.3C**
- Add grains
- Keep mash **10 min** at **52C**
- Keep mash **30 min** at **64C**
- Keep mash **20 min** at **72C**
- Keep mash **10 min** at **78C**
- Sparge using **14.4 liter(s)** of **76C** water or to achieve **24.6 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|----------------------------|----------------|-------|------|
| Grain | Weyermann - Pilsner Malt | 3.4 kg (66.7%) | 81 % | 4 |
| Grain | Weyermann pszeniczny jasny | 1 kg (19.6%) | 80 % | 6 |
| Grain | Carahell | 0.3 kg (5.9%) | 77 % | 26 |
| Grain | Cararoma | 0.2 kg (3.9%) | --- % | 400 |
| Grain | Carafa III | 0.08 kg (1.6%) | 70 % | 1034 |
| Grain | Jęczmień palony | 0.12 kg (2.4%) | 55 % | 985 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|---------------|--------|--------|------------|
| Boil | Kent Goldings | 30 g | 70 min | 5.7 % |

Yeasts

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

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 |
|-------|--------------------|--------|---------|--------|
| Spice | Kardamon | 4 g | Boil | 15 min |
| Spice | Cynamon | 5 g | Boil | 15 min |
| Spice | Imbir | 5 g | Boil | 15 min |
| Spice | Ziele angielskie | 3 g | Boil | 15 min |
| Spice | Goździki | 10 g | Boil | 15 min |
| Spice | Gałka muszkatołowa | 3 g | Boil | 15 min |