

świąteczne

- Gravity **15.7 BLG**
- ABV **6.6 %**
- IBU **57**
- SRM **30.3**
- Style **Christmas/Winter Specialty Spiced Beer**

Batch size

- Expected quantity of finished beer **22 liter(s)**
- Trub loss **5 %**
- Size with trub loss **23.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **27.8 liter(s)**

Mash information

- Mash efficiency **86 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **18.6 liter(s)**
- Total mash volume **24.8 liter(s)**

Steps

- Temp **69 C**, Time **60 min**

Mash step by step

- Heat up **18.6 liter(s)** of strike water to **77.2C**
- Add grains
- Keep mash **60 min** at **69C**
- Sparge using **15.4 liter(s)** of **76C** water or to achieve **27.8 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|-------------------------------|----------------|-------|------|
| Grain | Monachijski | 2 kg (32.3%) | 80 % | 16 |
| Grain | Biscuit Malt | 0.5 kg (8.1%) | 77 % | 50 |
| Grain | Karmelowy Pszeniczny Strzegom | 0.5 kg (8.1%) | 79 % | 130 |
| Grain | Carafa III | 0.2 kg (3.2%) | 70 % | 1034 |
| Grain | Strzegom Pale Ale | 2.5 kg (40.3%) | 79 % | 6 |
| Grain | Strzegom Karmel 600 | 0.5 kg (8.1%) | 68 % | 601 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|---------------|---------|--------|------------|
| Boil | Cascade | 23.91 g | 60 min | 6 % |
| Boil | Mosaic | 23.91 g | 60 min | 10 % |
| Boil | Nelson Sauvín | 23.91 g | 60 min | 11 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|--------------|------|------|--------|------------|
| Safale US-05 | Ale | Dry | 11 g | Fermentis |

Extras

| Type | Name | Amount | Use for | Time |
|------|------|--------|---------|------|
|------|------|--------|---------|------|

| | | | | |
|-------|----------|--------|------|--------|
| Spice | cynamon | 15 g | Boil | 10 min |
| Spice | goździki | 4.78 g | Boil | 10 min |
| Spice | kardamon | 4.78 g | Boil | 10 min |
| Spice | zest | 4.78 g | Boil | 10 min |