

świąteczne

- Gravity **15.4 BLG**
- ABV ---
- IBU **33**
- SRM **40.9**
- 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 **16.5 liter(s)**
- Total mash volume **22 liter(s)**

Steps

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

Mash step by step

- Heat up **16.5 liter(s)** of strike water to **77.2C**
- Add grains
- Keep mash **60 min** at **69C**
- Sparge using **16.8 liter(s)** of **76C** water or to achieve **27.8 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|----------------------------------|---------------|-------|------|
| Grain | Strzegom Monachijski typ I | 2 kg (36.4%) | 79 % | 16 |
| Grain | Strzegom Pilzneński | 2 kg (36.4%) | 80 % | 4 |
| Grain | Biscuit Malt | 0.5 kg (9.1%) | 77 % | 50 |
| Grain | Strzegom Pszeniczny | 0.5 kg (9.1%) | 81 % | 6 |
| Grain | Fawcett - Pszeniczny Czekoladowy | 0.5 kg (9.1%) | 73 % | 1001 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------------------|----------|--------|--------|------------|
| Boil | Magnum | 24 g | 55 min | 11.5 % |
| Aroma (end of boil) | boadicea | 25 g | 10 min | 7.6 % |

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 | 10 g | Boil | 10 min |
|-------|----------|------|------|--------|