

Świąteczne

- Gravity **15 BLG**
- ABV **6.2 %**
- IBU **34**
- SRM **37.4**
- Style **Christmas/Winter Specialty Spiced Beer**

Batch size

- Expected quantity of finished beer **11 liter(s)**
- Trub loss **10 %**
- Size with trub loss **13.2 liter(s)**
- Boil time **60 min**
- Evaporation rate **15 %/h**
- Boil size **16.4 liter(s)**

Mash information

- Mash efficiency **65 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **15.4 liter(s)**
- Total mash volume **19.8 liter(s)**

Steps

- Temp **69 C**, Time **60 min**
- Temp **76 C**, Time **5 min**

Mash step by step

- Heat up **15.4 liter(s)** of strike water to **76C**
- Add grains
- Keep mash **60 min** at **69C**
- Keep mash **5 min** at **76C**
- Sparge using **5.4 liter(s)** of **76C** water or to achieve **16.4 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|-----------------------------|----------------|-------|-----|
| Grain | Viking Pale Ale malt | 3.5 kg (79.5%) | 80 % | 5 |
| Grain | Castle Cafe | 0.3 kg (6.8%) | 80 % | 500 |
| Grain | Weyermann - Chocolate Wheat | 0.3 kg (6.8%) | 74 % | 788 |
| Grain | Weyermann Specjal W | 0.3 kg (6.8%) | 68 % | 300 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|-------|--------|--------|------------|
| Boil | lunga | 20 g | 50 min | 11 % |

Extras

| Type | Name | Amount | Use for | Time |
|--------|-----------------------|--------|----------|--------|
| Spice | skórka z 3 pomarańczy | 0 g | Boil | 10 min |
| Spice | goździki 8 sztuk | 0 g | Boil | 10 min |
| Spice | kardamon 5 sztuk | 0 g | Boil | 10 min |
| Flavor | ekstrakt wanilowy | 80 g | Bottling | --- |