

Świąteczny ale

- Gravity **17.5 BLG**
- ABV **7.5 %**
- IBU **38**
- SRM **37.6**
- Style **Specialty Beer**

Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **25.3 liter(s)**

Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **20.5 liter(s)**
- Total mash volume **27.4 liter(s)**

Steps

- Temp **65 C**, Time **30 min**
- Temp **72 C**, Time **30 min**

Mash step by step

- Heat up **20.5 liter(s)** of strike water to **72.5C**
- Add grains
- Keep mash **30 min** at **65C**
- Keep mash **30 min** at **72C**
- Sparge using **11.7 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|--------------------------|----------------|-------|------|
| Grain | Pilzneński | 4 kg (58.4%) | 81 % | 4 |
| Grain | Viking Pale Ale malt | 1.5 kg (21.9%) | 80 % | 5 |
| Grain | Karmelowy Jasny 30EBC | 0.3 kg (4.4%) | 75 % | 30 |
| Grain | Strzegom Karmel 300 | 0.5 kg (7.3%) | 70 % | 299 |
| Grain | Jęczmień palony | 0.3 kg (4.4%) | 55 % | 985 |
| Grain | Strzegom Barwiący | 0.25 kg (3.6%) | 68 % | 1300 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|---------|--------|--------|------------|
| Boil | lunga | 30 g | 90 min | 5.5 % |
| Boil | Marynka | 30 g | 60 min | 8 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|-------------|------|------|--------|------------|
| Safale S-04 | Ale | Dry | 12 g | --- |