

xmas

- Gravity **18.7 BLG**
- ABV ---
- IBU **24**
- SRM **33**
- Style **Christmas/Winter Specialty Spiced Beer**

Batch size

- Expected quantity of finished beer **21 liter(s)**
- Trub loss **5 %**
- Size with trub loss **22.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **26.5 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **2.5 liter(s) / kg**
- Mash size **20.5 liter(s)**
- Total mash volume **28.7 liter(s)**

Steps

- Temp **62 C**, Time **30 min**
- Temp **72 C**, Time **30 min**

Mash step by step

- Heat up **20.5 liter(s)** of strike water to **70.4C**
- Add grains
- Keep mash **30 min** at **62C**
- Keep mash **30 min** at **72C**
- Sparge using **14.2 liter(s)** of **76C** water or to achieve **26.5 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|-------------------------------|----------------|-------|------|
| Grain | Płatki owsiane | 0.5 kg (6.1%) | 60 % | 3 |
| Grain | Viking Pale Ale malt | 5 kg (61%) | 80 % | 5 |
| Grain | Strzegom Pilzneński | 1.5 kg (18.3%) | 80 % | 4 |
| Grain | Strzegom Karmel 150 | 0.5 kg (6.1%) | 75 % | 150 |
| Grain | Karmelowy Pszeniczny Strzegom | 0.2 kg (2.4%) | 79 % | 120 |
| Grain | Briess - Chocolate Malt | 0.2 kg (2.4%) | 60 % | 1150 |
| Grain | Weyermann - Carafa II | 0.2 kg (2.4%) | 70 % | 1150 |
| Grain | Pszeniczny Czekoladowy | 0.1 kg (1.2%) | 73 % | 1001 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|--------|--------|--------|------------|
| Boil | Magnat | 30 g | 60 min | 9.8 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|------|------|------|--------|------------|
|------|------|------|--------|------------|

| | | | | |
|-------------|-----|-----|------|-----------|
| Safale S-04 | Ale | Dry | 23 g | Fermentis |
|-------------|-----|-----|------|-----------|