

Christmas Ale

- Gravity **13.3 BLG**
- ABV **5.5 %**
- IBU **24**
- SRM **26**
- Style **Christmas/Winter Specialty Spiced Beer**

Batch size

- Expected quantity of finished beer **38 liter(s)**
- Trub loss **5 %**
- Size with trub loss **39.9 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **48.1 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **35.9 liter(s)**
- Total mash volume **46.1 liter(s)**

Steps

- Temp **54 C**, Time **15 min**
- Temp **65 C**, Time **35 min**
- Temp **72 C**, Time **35 min**
- Temp **75 C**, Time **10 min**

Mash step by step

- Heat up **35.9 liter(s)** of strike water to **58.9C**
- Add grains
- Keep mash **15 min** at **54C**
- Keep mash **35 min** at **65C**
- Keep mash **35 min** at **72C**
- Keep mash **10 min** at **75C**
- Sparge using **22.5 liter(s)** of **76C** water or to achieve **48.1 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|----------------------|----------------|-------|-----|
| Grain | Viking Pale Ale malt | 5 kg (48.8%) | 80 % | 5 |
| Grain | Viking - Żytni | 2 kg (19.5%) | 85 % | 8 |
| Grain | Pszeniczny | 2 kg (19.5%) | 85 % | 4 |
| Grain | Jęczmień palony | 0.5 kg (4.9%) | 55 % | 985 |
| Grain | Strzegom Karmel 300 | 0.5 kg (4.9%) | 70 % | 299 |
| Grain | Czekoladowy | 0.25 kg (2.4%) | 60 % | 788 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------------------|---------|--------|--------|------------|
| Boil | Marynka | 50 g | 60 min | 6.8 % |
| Aroma (end of boil) | Lomik | 50 g | 10 min | 5 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|----------------------------------|------|------|--------|------------|
| Mangrove Jack's M36 Liberty Bell | Ale | Dry | 11.5 g | --- |

Extras

| Type | Name | Amount | Use for | Time |
|-------|----------|--------|---------|--------|
| Spice | Cynamon | 35 g | Boil | 10 min |
| Spice | Anyż | 20 g | Boil | 10 min |
| Spice | Kardamon | 5 g | Boil | 10 min |
| Spice | goździki | 30 g | Boil | 10 min |