

Christmas ale

- Gravity **19.3 BLG**
- ABV **8.4 %**
- IBU **47**
- SRM **34.3**
- Style **Christmas/Winter Specialty Spiced Beer**

Batch size

- Expected quantity of finished beer **10 liter(s)**
- Trub loss **5 %**
- Size with trub loss **10.5 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **12.7 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **12 liter(s)**
- Total mash volume **16 liter(s)**

Steps

- Temp **64 C**, Time **40 min**
- Temp **72 C**, Time **20 min**

Mash step by step

- Heat up **12 liter(s)** of strike water to **71.3C**
- Add grains
- Keep mash **40 min** at **64C**
- Keep mash **20 min** at **72C**
- Sparge using **4.7 liter(s)** of **76C** water or to achieve **12.7 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|---------------------|---------------|-------|------|
| Grain | colorado pale base | 1 kg (25%) | 79 % | 6 |
| Grain | monachijski | 1 kg (25%) | 80 % | 25 |
| Grain | Special B Castle | 0.3 kg (7.5%) | 77 % | 290 |
| Grain | caramel sweet | 0.2 kg (5%) | 75 % | 60 |
| Grain | Strzegom Pilzneński | 1 kg (25%) | 80 % | 4 |
| Grain | Biscuit Malt | 0.3 kg (7.5%) | 77 % | 50 |
| Grain | słód czekoladowy | 0.1 kg (2.5%) | 68 % | 1000 |
| Grain | Jęczmień palony | 0.1 kg (2.5%) | 70 % | 1000 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------------------|-----------|--------|--------|------------|
| Boil | Northdown | 25 g | 60 min | 8.2 % |
| Aroma (end of boil) | flyer | 20 g | 10 min | 10 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|---------------------------------|------|------|--------|-----------------|
| Mangrove Jack's -M15 Empire Ale | Ale | Dry | 10 g | Mangrove Jack's |

Extras

| Type | Name | Amount | Use for | Time |
|-------------|---------------------------------|--------|---------|--------|
| Spice | gałka muskatołowa | 3 g | Boil | 15 min |
| Spice | pieprz czarny cały | 4 g | Boil | 15 min |
| Spice | goździki | 1 g | Boil | 15 min |
| Spice | przyprawa do ciastek korzennych | 20 g | Boil | 15 min |
| Water Agent | kwask mlekowy | 4 g | Mash | 60 min |
| Water Agent | chlerek wapnia | 4 g | Mash | 60 min |

Notes

- chlerek i kwas w ml, po 2 ml na zacieranie i wystadzanie
Oct 6, 2018, 3:42 PM