

Christmas Ale

- Gravity **16.6 BLG**
- ABV **7 %**
- IBU **37**
- SRM **10**
- Style **Christmas/Winter Specialty Spiced Beer**

Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **22 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **26.4 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **22.5 liter(s)**
- Total mash volume **30 liter(s)**

Steps

- Temp **55 C**, Time **15 min**
- Temp **68 C**, Time **45 min**

Mash step by step

- Heat up **22.5 liter(s)** of strike water to **60.8C**
- Add grains
- Keep mash **15 min** at **55C**
- Keep mash **45 min** at **68C**
- Sparge using **11.4 liter(s)** of **76C** water or to achieve **26.4 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|-----------------------------|---------------|-------|-----|
| Grain | Weyermann - Pale Ale Malt | 6 kg (80%) | 75 % | 6 |
| Grain | Weyermann - Dark Wheat Malt | 1 kg (13.3%) | 75 % | 16 |
| Grain | Caramel/Crystal Malt - 20L | 0.5 kg (6.7%) | 70 % | 120 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------------------|-------------------|--------|--------|------------|
| Boil | Centennial | 5 g | 60 min | 10.5 % |
| Boil | Falconer's Filght | 5 g | 60 min | 11 % |
| Boil | Crystal | 5 g | 60 min | 4.5 % |
| Boil | Cascade | 5 g | 60 min | 6 % |
| Boil | Centennial | 10 g | 15 min | 10.5 % |
| Boil | Falconer's Filght | 10 g | 15 min | 11 % |
| Boil | Crystal | 10 g | 15 min | 4.5 % |
| Boil | Cascade | 10 g | 15 min | 6 % |
| Aroma (end of boil) | Centennial | 35 g | 2 min | 10.5 % |
| Aroma (end of boil) | Falconer's Filght | 35 g | 2 min | 11 % |

| | | | | |
|---------------------|-------------------|------|----------|--------|
| Aroma (end of boil) | Crystal | 35 g | 2 min | 4.5 % |
| Aroma (end of boil) | Cascade | 35 g | 2 min | 6 % |
| Dry Hop | Centennial | 40 g | 7 day(s) | 10.5 % |
| Dry Hop | Falconer's Filght | 40 g | 7 day(s) | 11 % |
| Dry Hop | Crystal | 40 g | 7 day(s) | 4.5 % |
| Dry Hop | Cascade | 40 g | 7 day(s) | 6 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|--------------|------|------|--------|------------|
| Safale US-05 | Ale | Dry | 11.5 g | Fermentis |

Extras

| Type | Name | Amount | Use for | Time |
|-------|--------------------|--------|---------|--------|
| Spice | Gałka muszkatołowa | 3 g | Boil | 15 min |
| Spice | Kardamon | 3 g | Boil | 15 min |
| Spice | Ziele angielskie | 1 g | Boil | 15 min |
| Spice | Cynamon | 4 g | Boil | 15 min |
| Spice | Imbir | 2 g | Boil | 15 min |