

Christmas Ale

- Gravity **16.6 BLG**
- ABV **7 %**
- IBU **38**
- SRM **21.1**
- Style **Christmas/Winter Specialty Spiced Beer**

Batch size

- Expected quantity of finished beer **30 liter(s)**
- Trub loss **0 %**
- Size with trub loss **30 liter(s)**
- Boil time **60 min**
- Evaporation rate **8 %/h**
- Boil size **35 liter(s)**

Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **2.7 liter(s) / kg**
- Mash size **24.2 liter(s)**
- Total mash volume **33.1 liter(s)**

Steps

- Temp **64 C**, Time **30 min**
- Temp **74 C**, Time **40 min**
- Temp **78 C**, Time **0 min**

Mash step by step

- Heat up **24.2 liter(s)** of strike water to **72.1C**
- Add grains
- Keep mash **30 min** at **64C**
- Keep mash **40 min** at **74C**
- Keep mash **0 min** at **78C**
- Sparge using **19.8 liter(s)** of **76C** water or to achieve **35 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|-----------------------------|----------------|-------|------|
| Grain | Viking Pale Ale malt | 3 kg (33.5%) | 80 % | 5 |
| Grain | Strzegom Pilzneński | 2 kg (22.3%) | 80 % | 4 |
| Grain | Strzegom Monachijski typ II | 2 kg (22.3%) | 79 % | 22 |
| Grain | Strzegom Pszeniczny | 1 kg (11.2%) | 81 % | 6 |
| Grain | Płatki owsiane | 0.4 kg (4.5%) | 85 % | 3 |
| Grain | Karmelowy żytni Strzegom | 0.25 kg (2.8%) | 75 % | 300 |
| Grain | Weyermann - Carafa II | 0.3 kg (3.4%) | 70 % | 1100 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|------------|--------|--------|------------|
| Boil | Marynka | 50 g | 60 min | 8.8 % |
| Boil | Willamette | 50 g | 15 min | 5.2 % |

Yeasts

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

| | | | | |
|---------------------------------|-----|-----|--------|-----------------|
| Mangrove Jack's M41 Belgian Ale | Ale | Dry | 22.5 g | Mangrove Jack's |
|---------------------------------|-----|-----|--------|-----------------|

Extras

| Type | Name | Amount | Use for | Time |
|--------|-------------------|--------|---------|--------|
| Spice | Cynamon | 10 g | Boil | 10 min |
| Spice | Goździki | 12 g | Boil | 10 min |
| Spice | Gałka muskatołowa | 8 g | Boil | 10 min |
| Flavor | Skórka pomarańczy | 20 g | Boil | 10 min |
| Flavor | Cukier Waniliowy | 25 g | Boil | 10 min |
| Spice | Laska wanilii | 2 g | Boil | 10 min |
| Fining | mech irlandzki | 8 g | Boil | 10 min |