

## xmilk

- Gravity **14.7 BLG**
- ABV **6.1 %**
- IBU **25**
- SRM **34.3**
- Style **Christmas/Winter Specialty Spiced Beer**

### Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **25.3 liter(s)**

### Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **16.5 liter(s)**
- Total mash volume **22 liter(s)**

### Steps

- Temp **62 C**, Time **60 min**
- Temp **77 C**, Time **5 min**

### Mash step by step

- Heat up **16.5 liter(s)** of strike water to **69C**
- Add grains
- Keep mash **60 min** at **62C**
- Keep mash **5 min** at **77C**
- Sparge using **14.3 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

### Fermentables

| Type  | Name                        | Amount        | Yield  | EBC  |
|-------|-----------------------------|---------------|--------|------|
| Grain | Viking Pale Ale malt        | 2 kg (33.3%)  | 80 %   | 5    |
| Grain | Strzegom Czekoladowy ciemny | 0.3 kg (5%)   | 68 %   | 1200 |
| Grain | Caramel/Crystal Malt - 30L  | 2 kg (33.3%)  | 75 %   | 59   |
| Grain | Colorado Honning Malt       | 1 kg (16.7%)  | 75 %   | 15   |
| Grain | Strzegom pszenica prażona   | 0.2 kg (3.3%) | 80 %   | 1000 |
| Sugar | Milk Sugar (Lactose)        | 0.5 kg (8.3%) | 76.1 % | 0    |

### Hops

| Use for | Name   | Amount | Time   | Alpha acid |
|---------|--------|--------|--------|------------|
| Boil    | Mosaic | 25 g   | 60 min | 10 %       |

### Yeasts

| Name        | Type | Form | Amount | Laboratory |
|-------------|------|------|--------|------------|
| Safale S-04 | Ale  | Dry  | 11 g   | Safale     |

### Extras

| Type  | Name                     | Amount | Use for | Time   |
|-------|--------------------------|--------|---------|--------|
| Spice | przyprawa do<br>piernika | 30 g   | Boil    | 15 min |
| Spice | imbir                    | 5 g    | Boil    | 15 min |
| Spice | cynamon                  | 10 g   | Boil    | 15 min |
| Spice | goździki                 | 5 g    | Boil    | 15 min |