

Christmas stout

- Gravity **17.1 BLG**
- ABV **7.3 %**
- IBU ---
- SRM **27.9**
- Style **Foreign Extra Stout**

Batch size

- Expected quantity of finished beer **12 liter(s)**
- Trub loss **15 %**
- Size with trub loss **13.8 liter(s)**
- Boil time **90 min**
- Evaporation rate **12 %/h**
- Boil size **19.1 liter(s)**

Mash information

- Mash efficiency **60 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **16.8 liter(s)**
- Total mash volume **22.4 liter(s)**

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|----------------------------|---------------|--------|------|
| Grain | Viking Pale Ale malt | 2 kg (33.9%) | 80 % | 5 |
| Grain | Pilznieński | 2 kg (33.9%) | 81 % | 4 |
| Grain | Strzegom Czekoladowy jasny | 0.5 kg (8.5%) | 68 % | 400 |
| Grain | Carafa III | 0.1 kg (1.7%) | 70 % | 1034 |
| Grain | Special W | 0.5 kg (8.5%) | 72 % | 79 |
| Grain | Płatki owsiane | 0.5 kg (8.5%) | 85 % | 3 |
| Sugar | Milk Sugar (Lactose) | 0.3 kg (5.1%) | 76.1 % | 0 |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|-------------|------|-------|--------|------------|
| Safale S-04 | Ale | Slant | 200 ml | Safale |

Extras

| Type | Name | Amount | Use for | Time |
|--------|-------------|--------|---------|--------|
| Flavor | Masa makowa | 1800 g | Boil | 10 min |
| Spice | Cynamon | 15 g | Boil | 15 min |
| Spice | Kakao | 40 g | Mash | 30 min |