

rye dry stout

- Gravity **11.7 BLG**
- ABV **4.7 %**
- IBU **34**
- SRM **30.5**
- Style **Dry Stout**

Batch size

- Expected quantity of finished beer **21.5 liter(s)**
- Trub loss **5 %**
- Size with trub loss **22.6 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **27.2 liter(s)**

Mash information

- Mash efficiency **85 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **15.4 liter(s)**
- Total mash volume **19.8 liter(s)**

Steps

- Temp **67 C**, Time **70 min**
- Temp **67 C**, Time **10 min**
- Temp **76 C**, Time **5 min**

Mash step by step

- Heat up **15.4 liter(s)** of strike water to **73.7C**
- Add grains
- Keep mash **10 min** at **67C**
- Keep mash **70 min** at **67C**
- Keep mash **5 min** at **76C**
- Sparge using **16.2 liter(s)** of **76C** water or to achieve **27.2 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|-----------------------------|----------------|-------|------|
| Grain | Viking Pale Ale malt | 2 kg (45.5%) | 80 % | 5 |
| Grain | Żytni | 1 kg (22.7%) | 85 % | 8 |
| Grain | Monachijski | 0.5 kg (11.4%) | 80 % | 16 |
| Grain | Płatki jęczmienne | 0.4 kg (9.1%) | 85 % | 3 |
| Grain | Jęczmień palony | 0.2 kg (4.5%) | 55 % | 1100 |
| Grain | Carafa III | 0.2 kg (4.5%) | 70 % | 1350 |
| Grain | Strzegom Czekoladowy ciemny | 0.1 kg (2.3%) | 68 % | 1200 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|---------|--------|--------|------------|
| Boil | Admiral | 18 g | 60 min | 15.7 % |
| Boil | Fuggles | 20 g | 10 min | 5.9 % |

Yeasts

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