

Coffee time

- Gravity **12.9 BLG**
- ABV **5.2 %**
- IBU **37**
- SRM **36.1**
- Style **Dry Stout**

Batch size

- Expected quantity of finished beer **18 liter(s)**
- Trub loss **5 %**
- Size with trub loss **18.9 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **22.8 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **14.4 liter(s)**
- Total mash volume **19.2 liter(s)**

Steps

- Temp **66 C**, Time **60 min**
- Temp **72 C**, Time **15 min**
- Temp **76 C**, Time **5 min**

Mash step by step

- Heat up **14.4 liter(s)** of strike water to **73.7C**
- Add grains
- Keep mash **60 min** at **66C**
- Keep mash **15 min** at **72C**
- Keep mash **5 min** at **76C**
- Sparge using **13.2 liter(s)** of **76C** water or to achieve **22.8 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|----------------------------|---------------|-------|------|
| Grain | Viking Pale Ale malt | 4 kg (83.3%) | 80 % | 5 |
| Grain | Strzegom Karmel 600 | 0.2 kg (4.2%) | 68 % | 601 |
| Grain | Jęczmień palony | 0.3 kg (6.3%) | 55 % | 985 |
| Grain | Strzegom Czekoladowy jasny | 0.1 kg (2.1%) | 68 % | 400 |
| Grain | Carafa III | 0.2 kg (4.2%) | 70 % | 1034 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|------|--------|--------|------------|
| Boil | Zeus | 20 g | 60 min | 15.5 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|---------------------------------------|------|--------|--------|------------|
| WLP099 - Super High Gravity Ale Yeast | Ale | Liquid | 800 ml | White Labs |