

# Dry Stout

- Gravity **12.1 BLG**
- ABV **4.9 %**
- IBU **33**
- SRM **33.7**
- Style **Dry Stout**

## Batch size

- Expected quantity of finished beer **27 liter(s)**
- Trub loss **5 %**
- Size with trub loss **28.4 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **34.2 liter(s)**

## Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **19.5 liter(s)**
- Total mash volume **26 liter(s)**

## Steps

- Temp **55 C**, Time **5 min**
- Temp **67 C**, Time **60 min**
- Temp **72 C**, Time **30 min**
- Temp **78 C**, Time **1 min**

## Mash step by step

- Heat up **19.5 liter(s)** of strike water to **60.8C**
- Add grains
- Keep mash **5 min** at **55C**
- Keep mash **60 min** at **67C**
- Keep mash **30 min** at **72C**
- Keep mash **1 min** at **78C**
- Sparge using **21.2 liter(s)** of **76C** water or to achieve **34.2 liter(s)** of wort

## Fermentables

| Type  | Name                 | Amount        | Yield | EBC |
|-------|----------------------|---------------|-------|-----|
| Grain | Viking Pale Ale malt | 4 kg (61.5%)  | 80 %  | 5   |
| Grain | Monachijski          | 1 kg (15.4%)  | 80 %  | 16  |
| Grain | Czekoladowy          | 0.5 kg (7.7%) | 60 %  | 788 |
| Grain | Jęczmień palony      | 0.5 kg (7.7%) | 55 %  | 985 |
| Grain | płatki jęczmienne    | 0.5 kg (7.7%) | 60 %  | 4   |

## Hops

| Use for | Name    | Amount | Time   | Alpha acid |
|---------|---------|--------|--------|------------|
| Boil    | Marynka | 40 g   | 60 min | 10 %       |

## Yeasts

| Name        | Type | Form | Amount | Laboratory |
|-------------|------|------|--------|------------|
| Safale S-04 | Ale  | Dry  | 11.5 g | Fermentis  |

## Notes

- słody palone(czekoladowy i jęczmień palony) dodajemy przy temperaturze 72stC przerwa 10 minut  
*Feb 26, 2023, 8:00 PM*