

# 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*