

# #1\_Dry Stout

- Gravity **12.1 BLG**
- ABV **4.9 %**
- IBU **37**
- SRM **25.9**
- Style **Dry Stout**

## Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21 liter(s)**
- Boil time **60 min**
- Evaporation rate **15 %/h**
- Boil size **25.3 liter(s)**

## Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3.3 liter(s) / kg**
- Mash size **14.8 liter(s)**
- Total mash volume **19.4 liter(s)**

## Steps

- Temp **64 C**, Time **30 min**
- Temp **72 C**, Time **30 min**
- Temp **78 C**, Time **10 min**

## Mash step by step

- Heat up **14.8 liter(s)** of strike water to **70.7C**
- Add grains
- Keep mash **30 min** at **64C**
- Keep mash **30 min** at **72C**
- Keep mash **10 min** at **78C**
- Sparge using **15 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pale ale Maris Otter	3.5 kg (77.8%)	80.3 %	5.3
Grain	Strzegom Czekoladowy 400	0.2 kg (4.4%)	68 %	400
Grain	Jęczmień palony	0.3 kg (6.7%)	55 %	1150
Grain	Barley, Flaked	0.5 kg (11.1%)	70 %	4

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Target	35 g	60 min	9 %

## Yeasts

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

## Notes

- - słody jasne + płatki jęczmienne od początku zacierania
  - - słody ciemne na ostatnie 10min w przerwie dekstrynującej
- Feb 1, 2020, 3:14 PM*