

# #1 Dry Stout

- Gravity **11.4 BLG**
- ABV **4.6 %**
- IBU **23**
- SRM **32.3**
- Style **Dry Stout**

## Batch size

- Expected quantity of finished beer **11.5 liter(s)**
- Trub loss **2 %**
- Size with trub loss **11.7 liter(s)**
- Boil time **60 min**
- Evaporation rate **6 %/h**
- Boil size **13.7 liter(s)**

## Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3.2 liter(s) / kg**
- Mash size **7.6 liter(s)**
- Total mash volume **10 liter(s)**

## Steps

- Temp **67 C**, Time **90 min**
- Temp **72 C**, Time **10 min**
- Temp **76 C**, Time **2 min**

## Mash step by step

- Heat up **7.6 liter(s)** of strike water to **74.4C**
- Add grains
- Keep mash **90 min** at **67C**
- Keep mash **10 min** at **72C**
- Keep mash **2 min** at **76C**
- Sparge using **8.5 liter(s)** of **76C** water or to achieve **13.7 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Weyermann - Pale Ale Malt	1.65 kg (69.2%)	80 %	6.25
Grain	Barke - Monachijski	0.45 kg (18.9%)	80 %	19.5
Grain	Weyermann -Carafa Special II	0.11 kg (4.6%)	80 %	1200
wrzucić przy 72 stopniach w woreczku. wyciągnąć po 10 min				
Grain	Weyermann - Palone ziarno Jęczmienia	0.175 kg (7.3%)	80 %	1200
wrzucić przy 72 stopniach w woreczku. wyciągnąć po 10 min				

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Magnat	10 g	8 min	11.2 %
Boil	Sovereign	15 g	40 min	6.1 %

## Yeasts

Name	Type	Form	Amount	Laboratory
Safale S-04	Ale	Dry	8 g	Safale

## Extras

Type	Name	Amount	Use for	Time
Spice	Kolendra	6 g	Boil	3 min
dodanie 3 min przed końcem gotowania. - ukruszyć w młynku				