

# Dry Stout 12°BLG Twój Browar

- Gravity **10 BLG**
- ABV **4 %**
- IBU **38**
- SRM **17.1**
- Style **Dry Stout**

## Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **22 liter(s)**
- Boil time **60 min**
- Evaporation rate **12 %/h**
- Boil size **25.8 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **4 liter(s) / kg**
- Mash size **16 liter(s)**
- Total mash volume **20 liter(s)**

## Steps

- Temp **70 C**, Time **80 min**
- Temp **78 C**, Time **10 min**

## Mash step by step

- Heat up **16 liter(s)** of strike water to **76.3C**
- Add grains
- Keep mash **80 min** at **70C**
- Keep mash **10 min** at **78C**
- Sparge using **13.8 liter(s)** of **76C** water or to achieve **25.8 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pale ale Maris Otter - Thomas Fawcett & Sons LTD	3.5 kg (87.5%)	80.3 %	6
Grain	Pszeniczny Czekoladowy - Thomas Fawcett & Sons LTD	0.2 kg (5%)	72.7 %	1000
Grain	Palone ziarno jęczmienia	0.3 kg (7.5%)	70 %	100

## Hops

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

## Yeasts

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

## Extras

Type	Name	Amount	Use for	Time
Fining	Mech Irlandzki	5 g	Boil	10 min

Water Agent	Chlorek wapnia 33% E509	9 g	Mash	80 min
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## Notes

- Klarstein Braucheld 45  
woda źródlana Saguaro 5l  
składniki mineralne: 474,36mg/l  
ANIONY:  
wodorowęglanowy HCO-3: 238,00  
siarczanowy SO2-4: 84,77  
chlorkowy Cl-:20,20  
Fluorkowy F-: 0,05  
KATIONY:  
potasowy K+: 0,90  
sodowy Na+: 6,90  
magnezowy: Mg2+: 14,58  
wapniowy Ca2+: 94,19  
Nov 22, 2019, 8:28 PM