

# Espresso Stout

- Gravity **12.1 BLG**
- ABV **4.9 %**
- IBU **24**
- SRM **24**
- Style **Dry Stout**

## Batch size

- Expected quantity of finished beer **22 liter(s)**
- Trub loss **5 %**
- Size with trub loss **23.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **27.8 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **16 liter(s)**
- Total mash volume **21.3 liter(s)**

## Steps

- Temp **67 C**, Time **60 min**

## Mash step by step

- Heat up **16 liter(s)** of strike water to **74.8C**
- Add grains
- Keep mash **60 min** at **67C**
- Sparge using **17.1 liter(s)** of **76C** water or to achieve **27.8 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pilzneński	4 kg (75.1%)	81 %	4
Grain	Pszeniczny	0.5 kg (9.4%)	85 %	4
Grain	Karmelowy Jasny 30EBC	0.45 kg (8.5%)	75 %	30
Grain	Czekoladowy	0.25 kg (4.7%)	60 %	1200
Grain	Jęczmień palony	0.125 kg (2.3%)	55 %	1000

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Marynka	20 g	60 min	10 %
Boil	Fuggles	25 g	10 min	4.5 %

## Yeasts

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

## Extras

Type	Name	Amount	Use for	Time
Flavor	Kawa	100 g	Boil	1 min