

# imperial stout

- Gravity **18 BLG**
- ABV **7.7 %**
- IBU **16**
- SRM **27**

## 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 **2.5 liter(s) / kg**
- Mash size **20.8 liter(s)**
- Total mash volume **29.1 liter(s)**

## Steps

- Temp **65 C**, Time **60 min**
- Temp **72 C**, Time **20 min**
- Temp **78 C**, Time **0 min**

## Mash step by step

- Heat up **20.8 liter(s)** of strike water to **74C**
- Add grains
- Keep mash **60 min** at **65C**
- Keep mash **20 min** at **72C**
- Keep mash **0 min** at **78C**
- Sparge using **15.3 liter(s)** of **76C** water or to achieve **27.8 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pilzneński	6 kg (72.3%)	80 %	4
Grain	Monachijski typ II 20-25 EBC Weyermann	1 kg (12%)	80 %	20
Grain	castle malting chateau cara ruby	0.5 kg (6%)	70 %	45
Grain	Strzegom Czekoladowy ciemny	0.2 kg (2.4%)	68 %	1000
Grain	Jęczmień palony	0.3 kg (3.6%)	55 %	900
Grain	Płatki owsiane	0.3 kg (3.6%)	60 %	3

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Columbus/Tomahawk/Zeus	10 g	60 min	15.5 %
Boil	Citra	20 g	5 min	12 %

## Yeasts

Name	Type	Form	Amount	Laboratory
Safale S-04	Ale	Dry	23 g	Fermentis