

# żytni stout

- Gravity **13.8 BLG**
- ABV **5.7 %**
- IBU **25**
- SRM **35.2**
- Style **Oatmeal Stout**

## Batch size

- Expected quantity of finished beer **23 liter(s)**
- Trub loss **5 %**
- Size with trub loss **24.1 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 **3.5 liter(s) / kg**
- Mash size **21 liter(s)**
- Total mash volume **27 liter(s)**

## Steps

- Temp **68 C**, Time **90 min**
- Temp **78 C**, Time **1 min**

## Mash step by step

- Heat up **21 liter(s)** of strike water to **74.9C**
- Add grains
- Keep mash **90 min** at **68C**
- Keep mash **1 min** at **78C**
- Sparge using **12.8 liter(s)** of **76C** water or to achieve **27.8 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Suflet Pale Ale malt	2.5 kg (41.7%)	80 %	5
Grain	Żytni	2 kg (33.3%)	85 %	8
Grain	Karmelowy żytni Strzegom	0.5 kg (8.3%)	75 %	150
Grain	Słód Żytni Czekoladowy Weyermann	1 kg (16.7%)	75 %	700

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	lunga	25 g	50 min	11 %

## Extras

Type	Name	Amount	Use for	Time
Water Agent	woda z Biedry	21000 g	Mash	90 min
Water Agent	gips piwowarski	5 g	Mash	90 min
Water Agent	kwas	4 g	Mash	90 min