

# stout

- Gravity **14.7 BLG**
- ABV **6.1 %**
- IBU **20**
- SRM **37.6**
- Style **Sweet Stout**

## Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **25.3 liter(s)**

## Mash information

- Mash efficiency **78 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **15.4 liter(s)**
- Total mash volume **20.6 liter(s)**

## Steps

- Temp **67 C**, Time **80 min**
- Temp **70 C**, Time **10 min**
- Temp **77 C**, Time **10 min**

## Mash step by step

- Heat up **15.4 liter(s)** of strike water to **74.9C**
- Add grains
- Keep mash **80 min** at **67C**
- Keep mash **10 min** at **70C**
- Keep mash **10 min** at **77C**
- Sparge using **15.1 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	3 kg (53.1%)	80 %	4.5
Grain	Strzegom Karmel 150	0.5 kg (8.8%)	75 %	150
Grain	Monachijski	0.5 kg (8.8%)	80 %	16
Grain	Pszeniczny	0.5 kg (8.8%)	85 %	4
Grain	Strzegom Czekoladowy ciemny	0.3 kg (5.3%)	68 %	1200
Grain	Jęczmień palony	0.35 kg (6.2%)	55 %	985
Sugar	Milk Sugar (Lactose)	0.5 kg (8.8%)	76.1 %	0

## Hops

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

## Yeasts

Name	Type	Form	Amount	Laboratory
Gozdawa Pure Ale Yeast 7	Ale	Dry	10 g	---

## Extras

Type	Name	Amount	Use for	Time
Flavor	laktoza	500 g	Boil	10 min