

# Owsiak oddaj kasę

- Gravity **15.2 BLG**
- ABV **6.3 %**
- IBU **31**
- SRM **31.6**
- Style **Oatmeal Stout**

## Batch size

- Expected quantity of finished beer **21 liter(s)**
- Trub loss **5 %**
- Size with trub loss **22.1 liter(s)**
- Boil time **70 min**
- Evaporation rate **10 %/h**
- Boil size **26.9 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **18.3 liter(s)**
- Total mash volume **24.4 liter(s)**

## Steps

- Temp **51 C**, Time **10 min**
- Temp **67 C**, Time **90 min**
- Temp **72 C**, Time **30 min**
- Temp **76 C**, Time **0 min**

## Mash step by step

- Heat up **18.3 liter(s)** of strike water to **56.2C**
- Add grains
- Keep mash **10 min** at **51C**
- Keep mash **90 min** at **67C**
- Keep mash **30 min** at **72C**
- Keep mash **0 min** at **76C**
- Sparge using **14.7 liter(s)** of **76C** water or to achieve **26.9 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Słód pale ale 5.5-7.5 EBC Weyermann®	4.5 kg (70.9%)	80 %	7
Grain	Słód Caraaroma® 300-400 EBC Weyermann®	0.4 kg (6.3%)	78 %	400
Grain	Słód Karmelowy 600 Viking Malt	0.2 kg (3.1%)	68 %	600
Grain	Słód czekoladowy 1200 Viking Malt	0.2 kg (3.1%)	68 %	1202
Grain	Palone ziarna jęczmienia 1100-1200 EBC Weyermann	0.1 kg (1.6%)	55 %	985
Grain	Płatki owsiane błyskawiczne	0.7 kg (11%)	85 %	3
Sugar	Milk Sugar (Lactose)	0.25 kg (3.9%)	76.1 %	0

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Sovereign	20 g	20 min	6.1 %

Boil	Marynka	25 g	60 min	10 %
------	---------	------	--------	------

### Yeasts

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

### Extras

Type	Name	Amount	Use for	Time
Fining	mech irlandzki	5 g	Boil	15 min

### Notes

- zacieranie w 14 l wody - 54 C  
filtracja z łuską ryżową ok 100g  
*Feb 28, 2018, 2:20 PM*