

# Porter czekoladowy z owsem

- Gravity **14.5 BLG**
- ABV **6 %**
- IBU **31**
- SRM **61.4**
- Style **Robust Porter**

## Batch size

- Expected quantity of finished beer **25 liter(s)**
- Trub loss **1 %**
- Size with trub loss **25.3 liter(s)**
- Boil time **60 min**
- Evaporation rate **1 %/h**
- Boil size **25.8 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **14.7 liter(s)**
- Total mash volume **19.6 liter(s)**

## Steps

- Temp **62 C**, Time **30 min**
- Temp **72 C**, Time **45 min**
- Temp **78 C**, Time **15 min**

## Mash step by step

- Heat up **14.7 liter(s)** of strike water to **69C**
- Add grains
- Keep mash **30 min** at **62C**
- Keep mash **45 min** at **72C**
- Keep mash **15 min** at **78C**
- Sparge using **16 liter(s)** of **76C** water or to achieve **25.8 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	1.9 kg (32.2%)	80 %	5
Grain	Płatki owsiane	1 kg (16.9%)	85 %	3
Grain	Strzegom Czekoladowy 1200	1 kg (16.9%)	68 %	1201
Grain	Strzegom Karmel 600	1 kg (16.9%)	68 %	601
Sugar	Brown Sugar, Light	1 kg (16.9%)	100 %	16

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Marynka	25 g	60 min	10 %
Aroma (end of boil)	Pilgrim	15 g	15 min	9 %
Aroma (end of boil)	Green Bullet	10 g	5 min	11 %

## Yeasts

Name	Type	Form	Amount	Laboratory
Safabrew t-58	Ale	Dry	11.5 g	---