

# Czyszczenie magazynu

- Gravity **13.6 BLG**
- ABV **5.6 %**
- IBU **36**
- SRM **28.9**
- Style **Brown Porter**

## Batch size

- Expected quantity of finished beer **15 liter(s)**
- Trub loss **5 %**
- Size with trub loss **17.3 liter(s)**
- Boil time **60 min**
- Evaporation rate **15 %/h**
- Boil size **21.6 liter(s)**

## Mash information

- Mash efficiency **70 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **15 liter(s)**
- Total mash volume **20 liter(s)**

## Steps

- Temp **66 C**, Time **60 min**
- Temp **75 C**, Time **10 min**

## Mash step by step

- Heat up **15 liter(s)** of strike water to **73.7C**
- Add grains
- Keep mash **60 min** at **66C**
- Keep mash **10 min** at **75C**
- Sparge using **11.6 liter(s)** of **76C** water or to achieve **21.6 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	castlemalting Pale Ale	2 kg (40%)	80 %	9
Grain	Weyermann - Carafa I	0.2 kg (4%)	70 %	900
Grain	Weyermann pszeniczny czekoladowy	0.2 kg (4%)	65 %	1100
Grain	Płatki pszeniczne	0.5 kg (10%)	60 %	3
Grain	Bestmaltz Wiedeński	1.6 kg (32%)	79 %	9
Grain	Strzegom Monachijski typ II	0.5 kg (10%)	79 %	22

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	lunga	25 g	60 min	11 %

## Yeasts

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