

# Ciemna pszenica

- Gravity **13.3 BLG**
- ABV **5.5 %**
- IBU **17**
- SRM **20.2**
- Style **Weizen/Weissbier**

## 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 **13 %/h**
- Boil size **26.7 liter(s)**

## Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **17.7 liter(s)**
- Total mash volume **22.7 liter(s)**

## Steps

- Temp **44 C**, Time **20 min**
- Temp **68 C**, Time **60 min**
- Temp **76 C**, Time **10 min**

## Mash step by step

- Heat up **17.7 liter(s)** of strike water to **47.4C**
- Add grains
- Keep mash **20 min** at **44C**
- Keep mash **60 min** at **68C**
- Keep mash **10 min** at **76C**
- Sparge using **14.1 liter(s)** of **76C** water or to achieve **26.7 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pilzneński	2.2 kg (43.6%)	81 %	4
Grain	Pszeniczny	2.4 kg (47.5%)	85 %	4
Grain	Chocolate Malt (US)	0.15 kg (3%)	60 %	690
Grain	Caraaroma	0.15 kg (3%)	78 %	400
Grain	Jęczmień palony	0.15 kg (3%)	55 %	985

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Oktawia	20 g	10 min	9.6 %
Boil	Sybilla	20 g	30 min	4.3 %
Boil	Oktawia	20 g	5 min	7.1 %

## Yeasts

Name	Type	Form	Amount	Laboratory
FM41 Gwoździe i Banany	Wheat	Slant	100 ml	WLP 380