

# Ciemny pszenicznik

- Gravity **13.6 BLG**
- ABV ---
- IBU **14**
- SRM **23.9**
- Style **Dunkelweizen**

## 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 **75 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **17.1 liter(s)**
- Total mash volume **22 liter(s)**

## Steps

- Temp **45 C**, Time **20 min**
- Temp **64 C**, Time **60 min**
- Temp **72 C**, Time **20 min**

## Mash step by step

- Heat up **17.1 liter(s)** of strike water to **48.6C**
- Add grains
- Keep mash **20 min** at **45C**
- Keep mash **60 min** at **64C**
- Keep mash **20 min** at **72C**
- Sparge using **13.1 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pszeniczny	2 kg (40.9%)	85 %	4
Grain	Pilzneński	2 kg (40.9%)	81 %	4
Grain	Strzegom Monachijski typ II	0.3 kg (6.1%)	79 %	22
Grain	Fawcett - Pszeniczny Czekoladowy	0.25 kg (5.1%)	73 %	1001
Grain	karmelowy ciemny	0.34 kg (7%)	68 %	300

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Magnum	10 g	60 min	10.6 %
Boil	Saaz	20 g	5 min	2.9 %

## Yeasts

Name	Type	Form	Amount	Laboratory
FM41 Gwoździe i Banany	Wheat	Liquid	100 ml	Fermentum Mobile