

# Ciemny pszeniczny

- Gravity **12.4 BLG**
- ABV **5 %**
- IBU **14**
- SRM **18.8**
- Style **Dunkelweizen**

## Batch size

- Expected quantity of finished beer **12 liter(s)**
- Trub loss **5 %**
- Size with trub loss **12.6 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **15.2 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.2 liter(s) / kg**
- Mash size **9.4 liter(s)**
- Total mash volume **12.4 liter(s)**

## Steps

- Temp **45 C**, Time **10 min**
- Temp **63 C**, Time **30 min**
- Temp **72 C**, Time **30 min**
- Temp **76 C**, Time **5 min**

## Mash step by step

- Heat up **9.4 liter(s)** of strike water to **48.9C**
- Add grains
- Keep mash **10 min** at **45C**
- Keep mash **30 min** at **63C**
- Keep mash **30 min** at **72C**
- Keep mash **5 min** at **76C**
- Sparge using **8.8 liter(s)** of **76C** water or to achieve **15.2 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Monachijski	1.2 kg (40.7%)	80 %	16
Grain	Pszeniczny	1.4 kg (47.5%)	85 %	4
Grain	Słód Caramunich Typ II Weyermann	0.2 kg (6.8%)	73 %	120
Grain	Briess - Dark Chocolate Malt	0.15 kg (5.1%)	60 %	827

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Tradition	15 g	30 min	5.5 %
Boil	Sybillia	10 g	10 min	3.5 %

## Yeasts

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