

# ciemna pszenica

- Gravity **12.1 BLG**
- ABV **4.9 %**
- IBU **13**
- SRM **16.1**

## Batch size

- Expected quantity of finished beer **12 liter(s)**
- Trub loss **2 %**
- Size with trub loss **12.2 liter(s)**
- Boil time **70 min**
- Evaporation rate **12 %/h**
- Boil size **15.3 liter(s)**

## Mash information

- Mash efficiency **77 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **8.2 liter(s)**
- Total mash volume **11 liter(s)**

## Steps

- Temp **46 C**, Time **10 min**
- Temp **53 C**, Time **15 min**
- Temp **63 C**, Time **30 min**
- Temp **73 C**, Time **10 min**
- Temp **78 C**, Time **5 min**

## Mash step by step

- Heat up **8.2 liter(s)** of strike water to **50.4C**
- Add grains
- Keep mash **10 min** at **46C**
- Keep mash **15 min** at **53C**
- Keep mash **30 min** at **63C**
- Keep mash **10 min** at **73C**
- Keep mash **5 min** at **78C**
- Sparge using **9.9 liter(s)** of **76C** water or to achieve **15.3 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pilzneński	0.9 kg (32.7%)	80 %	4
Grain	Strzegom Pszeniczny	1.3 kg (47.3%)	81 %	6
Grain	Strzegom Monachijski typ II	0.3 kg (10.9%)	79 %	22
Grain	Strzegom Karmel 300	0.15 kg (5.5%)	70 %	299
Grain	Strzegom Czekoladowy jasny	0.05 kg (1.8%)	68 %	400
Grain	Strzegom pszenica prażona	0.05 kg (1.8%)	70 %	1000

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Lublin (Lubelski)	15 g	70 min	4 %
Boil	Lublin (Lubelski)	5 g	5 min	4 %

## Yeasts

<b>Name</b>	<b>Type</b>	<b>Form</b>	<b>Amount</b>	<b>Laboratory</b>
Bavarian Wheat 11	Wheat	Dry	5 g	Gozdawa