

# 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           |