

# 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    |