

# Ciemny Wdowiec

- Gravity **16.6 BLG**
- ABV **7 %**
- IBU **32**
- SRM **31.5**
- Style **Robust Porter**

## Batch size

- Expected quantity of finished beer **25 liter(s)**
- Trub loss **5 %**
- Size with trub loss **26.3 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **31.7 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **25.8 liter(s)**
- Total mash volume **34.4 liter(s)**

## Steps

- Temp **68 C**, Time **80 min**

## Mash step by step

- Heat up **25.8 liter(s)** of strike water to **76C**
- Add grains
- Keep mash **80 min** at **68C**
- Sparge using **14.5 liter(s)** of **76C** water or to achieve **31.7 liter(s)** of wort

## Fermentables

| Type  | Name                        | Amount         | Yield | EBC  |
|-------|-----------------------------|----------------|-------|------|
| Grain | Strzegom Pale Ale           | 5 kg (58.1%)   | 79 %  | 6    |
| Grain | Strzegom Monachijski typ II | 0.5 kg (5.8%)  | 79 %  | 22   |
| Grain | Strzegom Czekoladowy ciemny | 0.6 kg (7%)    | 68 %  | 1200 |
| Grain | Strzegom Pilzneński         | 2.5 kg (29.1%) | 80 %  | 4    |

## Hops

| Use for | Name       | Amount | Time   | Alpha acid |
|---------|------------|--------|--------|------------|
| Boil    | Challenger | 35 g   | 60 min | 5.1 %      |
| Boil    | Challenger | 25 g   | 5 min  | 5.1 %      |
| Boil    | Fuggles    | 30 g   | 5 min  | 4.5 %      |
| Boil    | Chinook    | 15 g   | 60 min | 12.7 %     |

## Yeasts

| Name               | Type | Form   | Amount | Laboratory  |
|--------------------|------|--------|--------|-------------|
| Wyeast - Irish Ale | Ale  | Liquid | 200 ml | Wyeast Labs |