

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