

Ciemny Wdowiec

- Gravity **13.1 BLG**
- ABV **5.3 %**
- IBU **25**
- SRM **32**
- 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 **20.4 liter(s)**
- Total mash volume **27.2 liter(s)**

Steps

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

Mash step by step

- Heat up **20.4 liter(s)** of strike water to **76C**
- Add grains
- Keep mash **80 min** at **68C**
- Sparge using **18.1 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 (73.5%)	79 %	6
Grain	Strzegom Monachijski typ I	0.5 kg (7.4%)	79 %	16
Grain	Strzegom Bursztynowy	0.7 kg (10.3%)	70 %	49
Grain	Strzegom Czekoladowy ciemny	0.6 kg (8.8%)	68 %	1200

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Challenger	35 g	60 min	7 %
Boil	Challenger	25 g	0 min	7 %
Boil	Fuggles	30 g	10 min	4.5 %

Yeasts

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