

US darkness

- Gravity **13 BLG**
- ABV ---
- IBU **79**
- SRM **40**
- Style **Black IPA**

Batch size

- Expected quantity of finished beer **27 liter(s)**
- Trub loss **5 %**
- Size with trub loss **28.4 liter(s)**
- Boil time **70 min**
- Evaporation rate **10 %/h**
- Boil size **34.7 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **22.8 liter(s)**
- Total mash volume **29.3 liter(s)**

Steps

- Temp **68 C**, Time **60 min**
- Temp **74 C**, Time **10 min**

Mash step by step

- Heat up **22.8 liter(s)** of strike water to **74.8C**
- Add grains
- Keep mash **60 min** at **68C**
- Keep mash **10 min** at **74C**
- Sparge using **18.4 liter(s)** of **76C** water or to achieve **34.7 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pale Ale	1 kg (15.4%)	79 %	6
Grain	Strzegom Pilzneński	1 kg (15.4%)	80 %	4
Grain	Strzegom Wiedeński	3 kg (46.2%)	79 %	10
Grain	Weyermann - Carafa III	0.5 kg (7.7%)	70 %	1300
Grain	Żytni	0.5 kg (7.7%)	85 %	8
Grain	Weyermann pszeniczny jasny	0.5 kg (7.7%)	80 %	6

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Citra	20 g	50 min	13.5 %
Boil	Mosaic	20 g	45 min	12 %
Boil	Cascade	20 g	40 min	8.1 %
Aroma (end of boil)	Lublin (Lubelski)	48 g	35 min	3.6 %
Aroma (end of boil)	Citra	6 g	30 min	13.5 %
Aroma (end of boil)	Mosaic	6 g	25 min	12 %
Aroma (end of boil)	Cascade	6 g	20 min	8.1 %

Yeasts

Recipe has been printed via **BREWNESS.com** - a complex online solution for homebrewers to track brewing process easily.

Name	Type	Form	Amount	Laboratory
Safale S-05	Ale	Dry	11.5 g	Safale

Extras

Type	Name	Amount	Use for	Time
Fining	mech irlandzki	5 g	Boil	15 min