

Black IPA

- Gravity **17.7 BLG**
- ABV **7.6 %**
- IBU **73**
- SRM **13.5**
- Style **American IPA**

Batch size

- Expected quantity of finished beer **25 liter(s)**
- Trub loss **5 %**
- Size with trub loss **26.3 liter(s)**
- Boil time **70 min**
- Evaporation rate **10 %/h**
- Boil size **32.2 liter(s)**

Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **25.7 liter(s)**
- Total mash volume **34.2 liter(s)**

Steps

- Temp **68 C**, Time **60 min**
- Temp **72 C**, Time **10 min**
- Temp **78 C**, Time **5 min**

Mash step by step

- Heat up **25.7 liter(s)** of strike water to **76C**
- Add grains
- Keep mash **60 min** at **68C**
- Keep mash **10 min** at **72C**
- Keep mash **5 min** at **78C**
- Sparge using **15.1 liter(s)** of **76C** water or to achieve **32.2 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pale Ale	6.5 kg (76%)	79 %	6
Grain	Strzegom Czekoladowy jasny	0.3 kg (3.5%)	68 %	400
Grain	Karmelowy Pszeniczny Strzegom	0.25 kg (2.9%)	79 %	130
Grain	Strzegom Monachijski typ I	1.5 kg (17.5%)	79 %	16

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Magnum	35 g	60 min	13.5 %
Boil	Citra	15 g	45 min	12 %
Boil	Magnum	15 g	30 min	13.5 %
Boil	Cascade	15 g	45 min	6 %
Boil	Marynka	15 g	20 min	10 %
Boil	Lublin (Lubelski)	15 g	30 min	4 %

Yeasts

Name	Type	Form	Amount	Laboratory
Safale US-05	Ale	Slant	200 ml	Fermentis