

Wzgórzowa 13

- Gravity **13.6 BLG**
- ABV **5.6 %**
- IBU **30**
- SRM **26.9**
- Style **Dry Stout**

Batch size

- Expected quantity of finished beer **75 liter(s)**
- Trub loss **5 %**
- Size with trub loss **78.8 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **94.9 liter(s)**

Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **55.8 liter(s)**
- Total mash volume **74.4 liter(s)**

Steps

- Temp **66 C**, Time **50 min**
- Temp **72 C**, Time **10 min**
- Temp **78 C**, Time **0 min**

Mash step by step

- Heat up **55.8 liter(s)** of strike water to **73.7C**
- Add grains
- Keep mash **50 min** at **66C**
- Keep mash **10 min** at **72C**
- Keep mash **0 min** at **78C**
- Sparge using **57.7 liter(s)** of **76C** water or to achieve **94.9 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pale Ale Zero	15 kg (80.6%)	82 %	5
Grain	Monachijski Jasny	1 kg (5.4%)	82 %	15
Grain	Czekoladowy Ciemny	1 kg (5.4%)	82 %	1000
Grain	Barwiący Palony	0.6 kg (3.2%)	82 %	1250
Grain	Pszeniczny	1 kg (5.4%)	82 %	4

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Marynka	100 g	60 min	8.1 %
Boil	East Kent Goldings	75 g	15 min	5.1 %
Boil	Cascade PL	75 g	5 min	5.2 %

Yeasts

Name	Type	Form	Amount	Laboratory
Safale S-04	Ale	Dry	11 g	Safale