

# Wzgórzowa 13

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- Gravity **14 BLG**
- ABV **5.8 %**
- IBU **23**
- SRM **30.9**
- Style **Dry Stout**

## Batch size

- Expected quantity of finished beer **52 liter(s)**
- Trub loss **5 %**
- Size with trub loss **54.6 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **65.8 liter(s)**

## Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **40.2 liter(s)**
- Total mash volume **53.6 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 **40.2 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 **39 liter(s)** of **76C** water or to achieve **65.8 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pale Ale Zero	10 kg (74.6%)	82 %	5
Grain	Monachijski Jasny	1 kg (7.5%)	82 %	15
Grain	Czekoladowy Ciemny	1 kg (7.5%)	82 %	1000
Grain	Barwiący Palony	0.4 kg (3%)	82 %	1250
Grain	Pszeniczny	1 kg (7.5%)	82 %	4

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Marynka	50 g	60 min	8.1 %
Boil	East Kent Goldings	50 g	15 min	5.1 %
Boil	Cascade PL	50 g	5 min	5.2 %

## Yeasts

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