

## Kaskader 2

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- Gravity **13.1 BLG**
- ABV **5.3 %**
- IBU **59**
- SRM **36.8**
- Style **Black IPA**

### 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 **19.6 liter(s)**
- Total mash volume **26.1 liter(s)**

### Steps

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

### Mash step by step

- Heat up **19.6 liter(s)** of strike water to **76C**
- Add grains
- Keep mash **60 min** at **68C**
- Keep mash **10 min** at **78C**
- Sparge using **18.6 liter(s)** of **76C** water or to achieve **31.7 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	3.3 kg (50.6%)	80 %	5
Grain	Pszeniczny	1.7 kg (26.1%)	85 %	4
Grain	Strzegom Monachijski typ I	0.5 kg (7.7%)	79 %	16
Grain	Żytni	0.3 kg (4.6%)	85 %	8
Grain	Weyermann - Carafa III	0.35 kg (5.4%)	70 %	1300
Grain	Jęczmień palony	0.1 kg (1.5%)	55 %	1100
Grain	Extra black	0.27 kg (4.1%)	65 %	1400

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	lunga	15 g	60 min	11 %
Boil	Marynka	15 g	60 min	10 %
Boil	Galaxy	20 g	20 min	15 %
Boil	Cascade	20 g	20 min	6 %
Boil	Amarillo	20 g	20 min	9.5 %
Aroma (end of boil)	Amarillo	20 g	0 min	9.5 %
Aroma (end of boil)	Cascade	20 g	0 min	6 %

Dry Hop	Cascade	20 g	2 day(s)	6 %
Dry Hop	Amarillo	30 g	2 day(s)	9.5 %

### Yeasts

Name	Type	Form	Amount	Laboratory
US-05	Ale	Slant	150 ml	---