

# Cascade Single Hop Ale

- Gravity **15.2 BLG**
- ABV ---
- IBU **73**
- SRM **12.2**
- Style **American IPA**

## Batch size

- Expected quantity of finished beer **17 liter(s)**
- Trub loss **8 %**
- Size with trub loss **18.4 liter(s)**
- Boil time **55 min**
- Evaporation rate **13 %/h**
- Boil size **22.5 liter(s)**

## Mash information

- Mash efficiency **60 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **6 liter(s)**
- Total mash volume **8 liter(s)**

## Steps

- Temp **69 C**, Time **50 min**
- Temp **78 C**, Time **1 min**

## Mash step by step

- Heat up **6 liter(s)** of strike water to **77.2C**
- Add grains
- Keep mash **50 min** at **69C**
- Keep mash **1 min** at **78C**
- Sparge using **18.5 liter(s)** of **76C** water or to achieve **22.5 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Liquid Extract	Bruntal ekstrakt słodowy Pale Ale	2.1 kg (47.7%)	80 %	4
Liquid Extract	WES ekstrakt słodowy bursztynowy	0.3 kg (6.8%)	80 %	300
Grain	Viking Pale Ale malt	1 kg (22.7%)	80 %	5
Grain	Strzegom Monachijski typ I	1 kg (22.7%)	79 %	16

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Marynka	25 g	50 min	9 %
Boil	lunga	35 g	30 min	10 %
Boil	Centennial	10 g	15 min	10.5 %
Boil	Cascade	20 g	10 min	6 %
Aroma (end of boil)	Cascade	10 g	5 min	6 %
Boil	Cascade	10 g	1 min	6 %

## Yeasts

Name	Type	Form	Amount	Laboratory
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Safale US-05	Ale	Dry	11 g	Fermentis
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## Notes

- 1,5l ekstraktu dać na początek gotowania, na 15min przed końcem sprawdzić Blg i dać tyle, żeby dojść do 15,5Blg (pamiętajmy o starterze 1l).  
*Feb 25, 2017, 2:50 PM*