

# Little Ala best bitter

- Gravity **11 BLG**
- ABV **4.4 %**
- IBU **32**
- SRM **10.5**
- Style **Special/Best/Premium Bitter**

## Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **25.3 liter(s)**

## Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3.75 liter(s) / kg**
- Mash size **15 liter(s)**
- Total mash volume **19 liter(s)**

## Steps

- Temp **53 C**, Time **10 min**
- Temp **63 C**, Time **45 min**
- Temp **72 C**, Time **15 min**
- Temp **78 C**, Time **15 min**

## Mash step by step

- Heat up **15 liter(s)** of strike water to **57.4C**
- Add grains
- Keep mash **10 min** at **53C**
- Keep mash **45 min** at **63C**
- Keep mash **15 min** at **72C**
- Keep mash **15 min** at **78C**
- Sparge using **14.3 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	3.5 kg (87.5%)	82 %	6
Grain	Strzegom Karmelowy 200	0.5 kg (12.5%)	75 %	200

## Hops

Use for	Name	Amount	Time	Alpha acid
Whirlpool	Amarillo	30 g	1 min	8.9 %
Aroma (end of boil)	Amarillo	15 g	5 min	8.9 %
Aroma (end of boil)	Nugget	15 g	15 min	12.8 %
Boil	Columbus/Tomahawk/Zeus	10 g	45 min	15.8 %

## Yeasts

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

## Extras

Type	Name	Amount	Use for	Time
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Fining	mech irlandzki	4 g	Boil	15 min
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