

# lunga 2020 ver 1.0

- Gravity **13.6 BLG**
- ABV **5.6 %**
- IBU **44**
- SRM **10.2**
- Style **American Pale Ale**

## Batch size

- Expected quantity of finished beer **11 liter(s)**
- Trub loss **9 %**
- Size with trub loss **12 liter(s)**
- Boil time **60 min**
- Evaporation rate **20 %/h**
- Boil size **17 liter(s)**

## Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **11 liter(s)**
- Total mash volume **14.2 liter(s)**

## Steps

- Temp **62 C**, Time **20 min**
- Temp **72 C**, Time **30 min**
- Temp **78 C**, Time **1 min**

## Mash step by step

- Heat up **11 liter(s)** of strike water to **68C**
- Add grains
- Keep mash **20 min** at **62C**
- Keep mash **30 min** at **72C**
- Keep mash **1 min** at **78C**
- Sparge using **9.2 liter(s)** of **76C** water or to achieve **17 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Weyermann - Monachijski II	3 kg (95.2%)	80 %	23
Grain	Weyermann - Zakwaszający	0.15 kg (4.8%)	80 %	5

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	lunga (2020 - PL)	25 g	60 min	10.3 %

## Yeasts

Name	Type	Form	Amount	Laboratory
Safale S-04	Ale	Dry	11.5 g	Fermentis

## Extras

Type	Name	Amount	Use for	Time
Water Agent	Chlorek wapnia	5 g	Mash	71 min