

# Luna regina stellarum est 2.0 (SMASH)

- Gravity **13.3 BLG**
- ABV **5.5 %**
- IBU **78**
- SRM **3.2**
- Style **American IPA**

## 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 **16 %/h**
- Boil size **16 liter(s)**

## Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3.33 liter(s) / kg**
- Mash size **10 liter(s)**
- Total mash volume **13 liter(s)**

## Steps

- Temp **67 C**, Time **60 min**
- Temp **72 C**, Time **10 min**
- Temp **80 C**, Time **1 min**

## Mash step by step

- Heat up **10 liter(s)** of strike water to **74.1C**
- Add grains
- Keep mash **60 min** at **67C**
- Keep mash **10 min** at **72C**
- Keep mash **1 min** at **80C**
- Sparge using **9 liter(s)** of **76C** water or to achieve **16 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Simpsons - Pale Ale Maris Otter Low Colour	3 kg (100%)	80 %	3

Mieszanie i kontrola temperatury co 15 min.

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Galaxy (AUS - 2020)	50 g	15 min	16.2 %
Boil	Galaxy (AUS - 2020)	50 g	1 min	16.2 %

Chmiel dodawany luzem do kotła.

## Yeasts

Name	Type	Form	Amount	Laboratory
Safale US-05	Ale	Slant	100 ml	Fermentis

Pierwsza szarża.

## Extras

Type	Name	Amount	Use for	Time
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Other	Woda zacieranie	10000 g	Mash	71 min
Saguaro - woda źródlana niegazowana (A-5)				
Other	Woda wysładzanie	10000 g	Mash	71 min
Saguaro - woda źródlana niegazowana (A-5)				
Water Agent	Kwas fosforowy (zacieranie)	2.5 g	Mash	71 min
Przed dodaniem soli 7,55 pH. Przed dodaniem ziarna 5,80 pH. Po 15 min zacierana 5,6 pH.				
Water Agent	Kwas fosforowy (wysładzanie)	3.5 g	Mash	71 min
5,6 pH				
Water Agent	Epsom Salt	2 g	Mash	71 min
Dodane do wody do zacierania.				
Water Agent	Gypsum	1 g	Mash	71 min
Dodane do wody do zacierania.				
Water Agent	Calcium Chloride	1 g	Mash	71 min
Dodane do wody do zacierania.				
Fining	Whirlfloc T	1 g	Boil	5 min
Pół tabletki.				

## Notes

- Sol rex caeli, Luna regina stellarum est - Słońce jest królem nieba, Księżyc jest królową gwiazd.

Link do profilu wody na (www.brewersfriend.com):

<https://www.brewersfriend.com/mash-chemistry-and-brewing-water-calculator/?id=XHN95YG>

Record ID: XHN95YG

Saguaro - woda źródlana niegazowana (A-5)

Aniony:

HCO<sub>3</sub> - 240 mg/L

SO<sub>4</sub> - 85 mg/L

Cl - 20 mg/L

Kationy:

Na - 7 mg/L

Mg - 15 mg/L

Ca - 95 mg/L

7,6 pH

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