

# Imperium spring

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- Gravity **19 BLG**
- ABV ---
- IBU **53**
- SRM **11.4**
- Style **American IPA**

## Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **3 %**
- Size with trub loss **21.2 liter(s)**
- Boil time **60 min**
- Evaporation rate **5 %/h**
- Boil size **23.3 liter(s)**

## Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **2.7 liter(s) / kg**
- Mash size **18.1 liter(s)**
- Total mash volume **24.9 liter(s)**

## Steps

- Temp **64 C**, Time **90 min**

## Mash step by step

- Heat up **18.1 liter(s)** of strike water to **72.2C**
- Add grains
- Keep mash **90 min** at **64C**
- Sparge using **11.9 liter(s)** of **76C** water or to achieve **23.3 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Adjunct	gips piwowarski	0.005 kg (0.1%)	1 %	1
Grain	Briess - Pale Ale Malt	4 kg (58.6%)	80 %	7
Grain	Melanoiden Malt	0.45 kg (6.6%)	80 %	70
Grain	Briess - Carapils Malt	1 kg (14.7%)	74 %	5
Grain	Strzegom Monachijski typ I	1 kg (14.7%)	79 %	15
Grain	zakawaszający	0.07 kg (1%)	5 %	5
Grain	Weyermann pszeniczny jasny	0.2 kg (2.9%)	80 %	6
Sugar	cukier	0.1 kg (1.5%)	100 %	1

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Columbus/Tomahawk/Zeus	10 g	60 min	13 %
Boil	Mosaic	10 g	50 min	12 %
Boil	Chinook	10 g	40 min	11 %
Boil	Columbus/Tomahawk/Zeus	10 g	30 min	13 %
Boil	Mosaic	10 g	20 min	12 %
Boil	Chinook	10 g	10 min	11 %
Boil	Chinook	10 g	5 min	11 %

Dry Hop	Mosaic	30 g	5 day(s)	12 %
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