

# Pan Gubernator

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- Gravity **15 BLG**
- ABV **6.2 %**
- IBU **27**
- SRM **4.3**
- Style **American IPA**

## Batch size

- Expected quantity of finished beer **10 liter(s)**
- Trub loss **10 %**
- Size with trub loss **12 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **14.3 liter(s)**

## Mash information

- Mash efficiency **70 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **10.8 liter(s)**
- Total mash volume **14.4 liter(s)**

## Steps

- Temp **64 C**, Time **40 min**
- Temp **72 C**, Time **30 min**

## Mash step by step

- Heat up **10.8 liter(s)** of strike water to **71.3C**
- Add grains
- Keep mash **40 min** at **64C**
- Keep mash **30 min** at **72C**
- Sparge using **7.1 liter(s)** of **76C** water or to achieve **14.3 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pilzneński	2.2 kg (61.1%)	80 %	4
Grain	Viking Pale Ale malt	0.4 kg (11.1%)	80 %	5
Grain	Płatki pszeniczne	0.5 kg (13.9%)	85 %	3
Grain	Płatki owsiane	0.5 kg (13.9%)	85 %	3

## Hops

Use for	Name	Amount	Time	Alpha acid
Aroma (end of boil)	Citra	5 g	8 min	13.9 %
Aroma (end of boil)	Mosaic	10 g	8 min	12.6 %
Whirlpool	Citra	10 g	30 min	13.9 %
Whirlpool	Centennial	10 g	30 min	10 %
Dry Hop	Amarillo	30 g	4 day(s)	9.8 %
Dry Hop	Mosaic	20 g	4 day(s)	12.6 %
Dry Hop	Citra	15 g	4 day(s)	13.9 %
Dry Hop	Centennial	20 g	4 day(s)	10 %

## Yeasts

Name	Type	Form	Amount	Laboratory
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Safale S-33	Ale	Dry	11.5 g	Fermentis
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