

# A Bigger Bang

- Gravity **15 BLG**
- ABV **6.2 %**
- IBU **48**
- SRM **6.4**
- Style **American IPA**

## 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 **75 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **21.5 liter(s)**
- Total mash volume **27.7 liter(s)**

## Steps

- Temp **67 C**, Time **60 min**
- Temp **72 C**, Time **10 min**
- Temp **77 C**, Time **1 min**

## Mash step by step

- Heat up **21.5 liter(s)** of strike water to **73.7C**
- Add grains
- Keep mash **60 min** at **67C**
- Keep mash **10 min** at **72C**
- Keep mash **1 min** at **77C**
- Sparge using **10 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	5 kg (81.3%)	80 %	5
Grain	Weyermann - Carapils	0.25 kg (4.1%)	78 %	4
Grain	Weyermann - Carared	0.25 kg (4.1%)	75 %	45
Grain	Weyermann - Melanoiden Malt	0.25 kg (4.1%)	81 %	53
Grain	płatki jęczmienne	0.2 kg (3.3%)	60 %	4
Grain	Płatki owsiane	0.2 kg (3.3%)	60 %	3

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Simcoe	20 g	45 min	13.2 %
Boil	Simcoe	10 g	20 min	13.2 %
Boil	Amarillo	10 g	20 min	9.5 %
Aroma (end of boil)	Simcoe	10 g	0 min	13.2 %
Aroma (end of boil)	Amarillo	10 g	0 min	9.5 %
Aroma (end of boil)	Cascade	10 g	0 min	6 %

Aroma (end of boil)	Citra	20 g	0 min	12 %
Whirlpool	Simcoe	10 g	15 min	13.2 %
Whirlpool	Amarillo	10 g	15 min	9.5 %
Whirlpool	Cascade	10 g	15 min	6 %
Whirlpool	Citra	10 g	15 min	12 %
Dry Hop	Simcoe	40 g	3 day(s)	13.2 %
Dry Hop	Citra	10 g	3 day(s)	12 %
Dry Hop	Amarillo	10 g	3 day(s)	9.5 %
Dry Hop	Cascade	20 g	3 day(s)	6 %

## Yeasts

Name	Type	Form	Amount	Laboratory
fm 54	Ale	Liquid	40 ml	---