

## IPA - Listopad

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- Gravity **11.4 BLG**
- ABV **4.6 %**
- IBU **56**
- SRM **3.8**
- 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 liter(s) / kg**
- Mash size **13.5 liter(s)**
- Total mash volume **18 liter(s)**

### Steps

- Temp **62 C**, Time **45 min**
- Temp **72 C**, Time **10 min**
- Temp **78 C**, Time **5 min**

### Mash step by step

- Heat up **13.5 liter(s)** of strike water to **69C**
- Add grains
- Keep mash **45 min** at **62C**
- Keep mash **10 min** at **72C**
- Keep mash **5 min** at **78C**
- Sparge using **16.3 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	4.3 kg (95.6%)	80 %	5
Grain	Weyermann - Carapils	0.2 kg (4.4%)	78 %	4

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Columbus/Tomahawk/Zeus	20 g	60 min	16.8 %
Boil	Willamette	10 g	20 min	4.5 %
Boil	Enigma (AUS)	10 g	10 min	16.5 %
Boil	Enigma (AUS)	10 g	5 min	16.5 %
Boil	Willamette	10 g	3 min	4.5 %
Aroma (end of boil)	Willamette	50 g	1 min	4.5 %
Aroma (end of boil)	Enigma (AUS)	30 g	1 min	16.5 %
Dry Hop	Enigma (AUS)	50 g	4 day(s)	16.5 %
Dry Hop	Willamette	130 g	4 day(s)	4.5 %