

# Tomahawk ipa

- Gravity **14 BLG**
- ABV ---
- IBU **72**
- SRM **7.5**
- Style **American IPA**

## Batch size

- Expected quantity of finished beer **21 liter(s)**
- Trub loss **5 %**
- Size with trub loss **23.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **27.7 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **2.5 liter(s) / kg**
- Mash size **14.4 liter(s)**
- Total mash volume **20.1 liter(s)**

## Steps

- Temp **66 C**, Time **60 min**

## Mash step by step

- Heat up **14.4 liter(s)** of strike water to **75.2C**
- Add grains
- Keep mash **60 min** at **66C**
- Sparge using **19.1 liter(s)** of **76C** water or to achieve **27.7 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pale Malt (2 Row) UK	3 kg (52.2%)	78 %	6
Grain	BESTMALZ - Best Pilsen	2.5 kg (43.5%)	80.5 %	4
Grain	Amber malt	0.25 kg (4.3%)	80 %	80

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Columbus/Tomahawk/Zeus	40 g	60 min	15.5 %
Aroma (end of boil)	Columbus/Tomahawk/Zeus	10 g	15 min	15.5 %
Dry Hop	Columbus/Tomahawk/Zeus	50 g	7 day(s)	15.5 %

## Yeasts

Name	Type	Form	Amount	Laboratory
M36	Ale	Dry	9.13 g	Mangrove jacks

## Extras

Type	Name	Amount	Use for	Time
Finning	Whirlfloc	9.13 g	Boil	15 min