

## 013 American India Pale Ale

- Gravity **15.6 BLG**
- ABV ---
- IBU **103**
- SRM **12.9**
- Style **American IPA**

### Batch size

- Expected quantity of finished beer **24 liter(s)**
- Trub loss **10 %**
- Size with trub loss **26.4 liter(s)**
- Boil time **60 min**
- Evaporation rate **15 %/h**
- Boil size **30.4 liter(s)**

### Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **19.5 liter(s)**
- Total mash volume **26 liter(s)**

### Steps

- Temp **66 C**, Time **60 min**
- Temp **72 C**, Time **15 min**
- Temp **76 C**, Time **10 min**

### Mash step by step

- Heat up **19.5 liter(s)** of strike water to **73.7C**
- Add grains
- Keep mash **60 min** at **66C**
- Keep mash **15 min** at **72C**
- Keep mash **10 min** at **76C**
- Sparge using **17.4 liter(s)** of **76C** water or to achieve **30.4 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Weyermann - Pale Ale Malt	5 kg (76.9%)	85 %	7
Grain	Weyermann - Pale Wheat Malt	0.5 kg (7.7%)	85 %	5
Grain	Strzegom Monachijski typ I	0.5 kg (7.7%)	79 %	16
Grain	Caramunich Malt	0.5 kg (7.7%)	71.7 %	150

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Columbus/Tomahawk/Zeus	50 g	60 min	15.5 %
Boil	Centennial	30 g	30 min	10.5 %
Boil	Citra	20 g	30 min	12 %
Boil	Citra	30 g	1 min	12 %

### Yeasts

Name	Type	Form	Amount	Laboratory
Wyeast - American Ale	Ale	Liquid	1000 ml	Wyeast Labs