

# America Ray IPA

- Gravity **14.5 BLG**
- ABV **6 %**
- IBU **26**
- SRM **5.1**
- Style **American IPA**

## Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **23 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **27.5 liter(s)**

## Mash information

- Mash efficiency **85 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **19.3 liter(s)**
- Total mash volume **24.8 liter(s)**

## Steps

- Temp **67 C**, Time **60 min**
- Temp **72 C**, Time **10 min**
- Temp **78 C**, Time **0 min**

## Mash step by step

- Heat up **19.3 liter(s)** of strike water to **73.7C**
- Add grains
- Keep mash **60 min** at **67C**
- Keep mash **10 min** at **72C**
- Keep mash **0 min** at **78C**
- Sparge using **13.7 liter(s)** of **76C** water or to achieve **27.5 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pilzneński	3.5 kg (63.6%)	80 %	4
Grain	Weyermann - Rye Malt	1.5 kg (27.3%)	85 %	7
Grain	Karmelowy Jasny 30EBC	0.5 kg (9.1%)	75 %	30

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Citra	25 g	15 min	12 %
Boil	Cascade	30 g	10 min	6 %
Boil	Citra	25 g	5 min	12 %
Dry Hop	Citra	45 g	3 day(s)	12 %
Dry Hop	sabro	50 g	3 day(s)	15 %

## Yeasts

Name	Type	Form	Amount	Laboratory
FM52 Amerykański Sen	Ale	Liquid	50 ml	Fermentum Mobile

## Notes

- rozlew ok 4-5 g glukozy na litr  
burzliwa - dni  
cicha - 12 dni  
*Mar 10, 2019, 6:50 PM*