american india pale ale

- Gravity **16.4 BLG**
- ABV **6.9 %**
- IBU **84**
- SRM **10**
- Style **American IPA**

Batch size

- Expected quantity of finished beer **8 liter(s)**
- Trub loss **5 %**
- Size with trub loss **8.4 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **10.1 liter(s)**

Mash information

- Mash efficiency **65 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **9.1 liter(s)**
- Total mash volume **12.2 liter(s)**

Steps

- Temp **62 C**, Time **25 min**
- Temp **68 C**, Time **15 min**
- Temp **72 C**, Time **10 min**
- Temp **78 C**, Time **5 min**

Mash step by step

- Heat up **9.1 liter(s)** of strike water to **69C**
- Add grains
- Keep mash **25 min** at **62C**
- Keep mash **15 min** at **68C**
- Keep mash **10 min** at **72C**
- Keep mash **5 min** at **78C**
- Sparge using **4.1 liter(s)** of **76C** water or to achieve **10.1 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	manochijski	2.8 kg *(91.8%)*	--- %	12
Grain	Briess - Pale Ale Malt	0.2 kg *(6.6%)*	80 %	7
Grain	Strzegom Karmel 150	0.05 kg *(1.6%)*	75 %	150

Hops

Use for	Name	Amount	Time	Alpha acid
Aroma (end of boil)	Citra	60 g	5 min	13.7 %
Aroma (end of boil)	Simcoe	40 g	10 min	13.2 %

Yeasts

Name	Type	Form	Amount	Laboratory
us-05	Ale	Dry	11.5 g	---

Recipe has been printed via **BREWNESS.com** - a complex online solution for homebrewers to track brewing process easily.