

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 | --- |