

## AIPA z HB (jako punkt referencyjny)

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- Gravity **15.2 BLG**
- ABV **6.3 %**
- IBU **40**
- SRM **7.7**
- Style **American IPA**

### Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **10 %**
- 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 **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **20.1 liter(s)**
- Total mash volume **26.8 liter(s)**

### Steps

- Temp **65 C**, Time **40 min**
- Temp **70 C**, Time **30 min**

### Mash step by step

- Heat up **20.1 liter(s)** of strike water to **72.5C**
- Add grains
- Keep mash **40 min** at **65C**
- Keep mash **30 min** at **70C**
- Sparge using **14.1 liter(s)** of **76C** water or to achieve **27.5 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	5 kg (74.6%)	80 %	5
Grain	Viking Munich Malt	1.5 kg (22.4%)	78 %	18
Grain	Karmelowy Pszeniczny Strzegom	0.2 kg (3%)	79 %	130

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Columbus/Tomahawk/Zeus	30 g	50 min	15.5 %
Aroma (end of boil)	Willamette	100 g	0 min	5 %
Dry Hop	Citra	100 g	2 day(s)	12 %

### Yeasts

Name	Type	Form	Amount	Laboratory
Mangrove Jack's M44 US West Coast	Ale	Dry	20 g	Mangrove Jack's