magdag 2

- Gravity **17.3 BLG**
- ABV **7.4 %**
- IBU **40**
- SRM **19.4**
- Style **Brown IPA**

Batch size

- Expected quantity of finished beer **16 liter(s)**
- Trub loss **5 %**
- Size with trub loss **17 liter(s)**
- Boil time **60 min**
- Evaporation rate **8 %/h**
- Boil size **19.7 liter(s)**

Mash information

- Mash efficiency **74 %**
- Liquor-to-grist ratio **2.5 liter(s) / kg**
- Mash size **14.4 liter(s)**
- Total mash volume **20.2 liter(s)**

Steps

- Temp **64 C**, Time **30 min**
- Temp **75 C**, Time **40 min**

Mash step by step

- Heat up **14.4 liter(s)** of strike water to **72.8C**
- Add grains
- Keep mash **30 min** at **64C**
- Keep mash **40 min** at **75C**
- Sparge using **11.1 liter(s)** of **76C** water or to achieve **19.7 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	2 kg *(34.7%)*	80 %	5
Grain	Viking Munich Malt	1.2 kg *(20.8%)*	78 %	18
Grain	Karmelowy Jasny 30EBC	1.02 kg *(17.7%)*	75 %	30
Grain	Strzegom Karmel 150	1.15 kg *(19.9%)*	75 %	150
Grain	enzymatyczny	0.2 kg *(3.5%)*	80 %	5
Grain	Weyermann - Acidulated Malt	0.2 kg *(3.5%)*	80 %	6

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Marynka	25 g	30 min	8 %
Boil	Marynka	25 g	30 min	8 %
Aroma (end of boil)	Crystal	100 g	2 min	4.5 %

Yeasts

Name	Type	Form	Amount	Laboratory
Mangrove Jack's M44 US West Coast	Ale	Slant	250 ml	Mangrove Jack's

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

Extras

Type	Name	Amount	Use for	Time
Fining	whirlflock	1 g	Boil	10 min