W ryj i pa.

- Gravity **18.2 BLG**
- ABV **7.8 %**
- IBU **76**
- SRM **6.4**
- Style **Rye IPA**

Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **25.3 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **2.7 liter(s) / kg**
- Mash size **19.6 liter(s)**
- Total mash volume **26.8 liter(s)**

Steps

- Temp **53 C**, Time **0 min**
- Temp **65 C**, Time **20 min**
- Temp **73 C**, Time **60 min**
- Temp **76 C**, Time **5 min**

Mash step by step

- Heat up **19.6 liter(s)** of strike water to **59.1C**
- Add grains
- Keep mash **0 min** at **53C**
- Keep mash **20 min** at **65C**
- Keep mash **60 min** at **73C**
- Keep mash **5 min** at **76C**
- Sparge using **13 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Weyermann - Acidulated Malt	0.25 kg *(3.4%)*	80 %	3
Grain	Weyermann - Bohemian Pilsner Malt	3 kg *(41.4%)*	81 %	4
Grain	Munich Malt	2 kg *(27.6%)*	80 %	12
Grain	Weyermann - Rye Malt	2 kg *(27.6%)*	85 %	7

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Zythos	35 g	45 min	11 %
Boil	Falconer`s Flight	55 g	20 min	11 %
Boil	Citra	23 g	7 min	12 %
Boil	Mosaic	27 g	7 min	10 %
Dry Hop	Zythos	18 g	6 day(s)	11 %
Dry Hop	Falconer`s Flight	50 g	6 day(s)	11 %

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

Dry Hop	Citra	27 g	6 day(s)	12 %
Dry Hop	Simcoe	45 g	6 day(s)	13.2 %

Yeasts

Name	Type	Form	Amount	Laboratory
Mangrove Jack's M44 US West Coast	Ale	Dry	10 g	Mangrove Jack's

Notes

- Przy zacieraniu podgrzewamy wodę do 56*C i zasypuje słodami.
  Temperatura powinna spaść do okło 53*C. Po zasypie podgrzewamy oczywiście do pierwszej przerwy.
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