

Michait

- Gravity **22 BLG**
- ABV **9.9 %**
- IBU **89**
- SRM **51**
- Style **Russian Imperial Stout**

Batch size

- Expected quantity of finished beer **18 liter(s)**
- Trub loss **5 %**
- Size with trub loss **18.9 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **22.8 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **2.2 liter(s) / kg**
- Mash size **17.8 liter(s)**
- Total mash volume **25.9 liter(s)**

Steps

- Temp **62 C**, Time **40 min**
- Temp **72 C**, Time **20 min**
- Temp **76 C**, Time **10 min**

Mash step by step

- Heat up **17.8 liter(s)** of strike water to **71.6C**
- Add grains
- Keep mash **40 min** at **62C**
- Keep mash **20 min** at **72C**
- Keep mash **10 min** at **76C**
- Sparge using **13.1 liter(s)** of **76C** water or to achieve **22.8 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Weyermann - Dark Wheat Malt	0.5 kg (6.2%)	85 %	14
Grain	Weyermann - Smoked Malt	0.5 kg (6.2%)	81 %	6
Grain	Weyermann - Carafa special II	0.3 kg (3.7%)	70 %	1100
Grain	Weyermann - Roasted Barley	0.3 kg (3.7%)	70 %	1084
Grain	Weyermann - Wheat Malt	1.5 kg (18.5%)	85 %	5
Grain	Weyermann - Caraaroma	1 kg (12.3%)	78 %	400
Grain	Weyermann - Pale Ale Malt	2 kg (24.7%)	85 %	7
Grain	Weyermann - Munich Malt type 2	2 kg (24.7%)	77 %	20

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Columbus/Tomahawk/Zeus	40 g	60 min	15.5 %

Boil	Enigma (AUS)	10 g	40 min	17.2 %
Boil	Columbus/Tomahawk/Zeus	20 g	20 min	15.5 %
Boil	Columbus/Tomahawk/Zeus	17 g	10 min	15.5 %

Yeasts

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