

Siema Manchester

- Gravity **11.4 BLG**
- ABV **4.6 %**
- IBU **26**
- SRM **14.2**
- Style **Northern English Brown Ale**

Batch size

- Expected quantity of finished beer **11.3 liter(s)**
- Trub loss **5 %**
- Size with trub loss **11.9 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **15 liter(s)**

Mash information

- Mash efficiency **82 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **7.4 liter(s)**
- Total mash volume **9.9 liter(s)**

Steps

- Temp **66 C**, Time **70 min**
- Temp **66 C**, Time **15 min**
- Temp **77 C**, Time **5 min**

Mash step by step

- Heat up **7.4 liter(s)** of strike water to **73.7C**
- Add grains
- Keep mash **15 min** at **66C**
- Keep mash **70 min** at **66C**
- Keep mash **5 min** at **77C**
- Sparge using **10.1 liter(s)** of **76C** water or to achieve **15 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Simpsons - Maris Otter	2.1275 kg (85.7%)	81 %	6
Grain	Caramel/Crystal Malt - 20L	0.1275 kg (5.1%)	75 %	39
Grain	Brown Malt (British Chocolate)	0.1275 kg (5.1%)	70 %	128
Grain	Czekoladowy	0.1 kg (4%)	60 %	788

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Progress	20 g	60 min	5.5 %
Aroma (end of boil)	East Kent Goldings	9 g	15 min	5.1 %

Yeasts

Name	Type	Form	Amount	Laboratory
Danstar - Nottingham	Ale	Dry	11.5 g	Danstar