

# Czarny Minionek 2.0

- Gravity **14.5 BLG**
- ABV **6 %**
- IBU **26**
- SRM **34.3**
- Style **Sweet Stout**

## Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **22 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **26.4 liter(s)**

## Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **20.3 liter(s)**
- Total mash volume **26.1 liter(s)**

## Steps

- Temp **67 C**, Time **75 min**
- Temp **78 C**, Time **1 min**

## Mash step by step

- Heat up **20.3 liter(s)** of strike water to **73.7C**
- Add grains
- Keep mash **75 min** at **67C**
- Keep mash **1 min** at **78C**
- Sparge using **11.9 liter(s)** of **76C** water or to achieve **26.4 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	IREKS Pilzneński	4.5 kg (77.6%)	80.5 %	4
Grain	Biscuit Malt	0.4 kg (6.9%)	79 %	45
Grain	Carahell	0.3 kg (5.2%)	77 %	26
Grain	Czekoladowy	0.3 kg (5.2%)	60 %	1200
Grain	Weyermann - Carafa Special II	0.3 kg (5.2%)	70 %	1100

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	lunga	20 g	45 min	12.9 %
Boil	lunga	10 g	5 min	12.9 %

## Extras

Type	Name	Amount	Use for	Time
Flavor	cacao w proszku	10 g	Boil	15 min
Flavor	laktoza	500 g	Boil	15 min