

# MOKO Christmas Ale

---

- Gravity **14.5 BLG**
- ABV **6 %**
- IBU **36**
- SRM **8.3**
- Style **Christmas/Winter Specialty Spiced Beer**

## 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 **24.2 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **14.1 liter(s)**
- Total mash volume **18.8 liter(s)**

## Steps

- Temp **68 C**, Time **60 min**
- Temp **75 C**, Time **5 min**

## Mash step by step

- Heat up **14.1 liter(s)** of strike water to **76C**
- Add grains
- Keep mash **60 min** at **68C**
- Keep mash **5 min** at **75C**
- Sparge using **14.8 liter(s)** of **76C** water or to achieve **24.2 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pilzneński	2.7 kg (51.9%)	81 %	4
Grain	Monachijski	1.8 kg (34.6%)	80 %	16
Grain	Special B Castle	0.1 kg (1.9%)	70 %	350
Grain	Biscuit Malt	0.1 kg (1.9%)	79 %	45
Sugar	Cukier	0.5 kg (9.6%)	90 %	0

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	lunga	30 g	60 min	11 %
Boil	Marynka	10 g	1 min	10 %

## Yeasts

Name	Type	Form	Amount	Laboratory
Safale US-05	Ale	Dry	20 g	Fermentis

## Extras

Type	Name	Amount	Use for	Time
Spice	Imbir	30 g	Boil	10 min
Spice	Cynamon	10 g	Boil	10 min

Spice	Anyż	5 g	Boil	10 min
Spice	Gałka muszkatałowa	5 g	Boil	10 min
Spice	Goździki	5 g	Boil	10 min
Spice	Kardamon	5 g	Boil	10 min
Spice	Skórka pomarańczowa	20 g	Boil	10 min