

# Czarna Mańka

- Gravity **14.3 BLG**
- ABV ---
- IBU **76**
- SRM **30.2**
- Style **Black IPA**

## Batch size

- Expected quantity of finished beer **13 liter(s)**
- Trub loss **3.5 %**
- Size with trub loss **13.5 liter(s)**
- Boil time **60 min**
- Evaporation rate **4 %/h**
- Boil size **14.6 liter(s)**

## Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **11.2 liter(s)**
- Total mash volume **14.4 liter(s)**

## Steps

- Temp **66 C**, Time **70 min**
- Temp **76 C**, Time **10 min**

## Mash step by step

- Heat up **11.2 liter(s)** of strike water to **72.6C**
- Add grains
- Keep mash **70 min** at **66C**
- Keep mash **10 min** at **76C**
- Sparge using **6.6 liter(s)** of **76C** water or to achieve **14.6 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pale Ale	1.5 kg (46.9%)	79 %	6
Grain	Strzegom Pilzneński	1.5 kg (46.9%)	80 %	4
Grain	Strzegom pszenica prażona	0.1 kg (3.1%)	70 %	1000
Grain	Jęczmień palony	0.1 kg (3.1%)	55 %	985

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Celeia	5 g	60 min	5.3 %
Boil	Progress	5 g	60 min	6.9 %
Boil	Citra	5 g	60 min	13.5 %
Boil	Equinox	5 g	60 min	13.4 %
Boil	Mosaic	5 g	60 min	11.7 %
Boil	Celeia	5 g	15 min	5.3 %
Boil	Progress	5 g	15 min	6.9 %
Boil	Citra	5 g	15 min	13.5 %
Boil	Equinox	5 g	15 min	13.4 %
Boil	Mosaic	5 g	15 min	11.7 %

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Boil	Progress	5 g	5 min	6.9 %
Boil	Citra	5 g	5 min	13.5 %
Boil	Equinox	5 g	5 min	13.4 %
Boil	Mosaic	5 g	5 min	11.7 %

## Yeasts

Name	Type	Form	Amount	Laboratory
Safale S-04	Ale	Dry	11 g	Safeale

## Extras

Type	Name	Amount	Use for	Time
Fining	Mech Irlandzki	5 g	Boil	15 min
Flavor	Skórka cytrynowa (suszona)	10 g	Boil	15 min
Flavor	Skórka cytrynowa (suszona)	10 g	Boil	10 min
Flavor	Skórka cytrynowa (suszona)	17 g	Boil	5 min