

# 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  |