

# Zulu-Zombie Imperial Rye IPA (Kooperacja Śmierć na Wyjeździe)

- Gravity **22.2 BLG**
- ABV **10 %**
- IBU **91**
- SRM **7.4**
- Style **Rye IPA**

## Batch size

- Expected quantity of finished beer **22 liter(s)**
- Trub loss **7 %**
- Size with trub loss **23.5 liter(s)**
- Boil time **100 min**
- Evaporation rate **7 %/h**
- Boil size **28.7 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **2.5 liter(s) / kg**
- Mash size **25 liter(s)**
- Total mash volume **35 liter(s)**

## Steps

- Temp **45 C**, Time **30 min**
- Temp **62 C**, Time **30 min**
- Temp **72 C**, Time **30 min**
- Temp **79 C**, Time **1 min**

## Mash step by step

- Heat up **25 liter(s)** of strike water to **50C**
- Add grains
- Keep mash **30 min** at **45C**
- Keep mash **30 min** at **62C**
- Keep mash **30 min** at **72C**
- Keep mash **1 min** at **79C**
- Sparge using **13.7 liter(s)** of **76C** water or to achieve **28.7 liter(s)** of wort

## Fermentables

| Type  | Name              | Amount     | Yield | EBC |
|-------|-------------------|------------|-------|-----|
| Grain | Strzegom Pale Ale | 5 kg (50%) | 79 %  | 6   |
| Grain | Żytni             | 5 kg (50%) | 85 %  | 8   |

## Hops

| Use for | Name          | Amount | Time     | Alpha acid |
|---------|---------------|--------|----------|------------|
| Boil    | ZULU          | 100 g  | 40 min   | 10 %       |
| Boil    | Zombie        | 50 g   | 30 min   | 7.6 %      |
| Boil    | Zombie        | 50 g   | 15 min   | 7.6 %      |
| Boil    | Zombie        | 50 g   | 0 min    | 7.6 %      |
| Dry Hop | Zombie- cicha | 50 g   | 4 day(s) | 7.6 %      |

## Yeasts

| Name  | Type | Form | Amount | Laboratory |
|-------|------|------|--------|------------|
| US-05 | Ale  | Dry  | 23 g   | ---        |

## Extras

| Type   | Name      | Amount | Use for | Time   |
|--------|-----------|--------|---------|--------|
| Fining | Wherflock | 0.5 g  | Boil    | 15 min |