# R.I.S

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- Gravity **27.3 BLG**
- ABV **---**
- IBU **53**
- SRM **40**
- Style **Russian Imperial Stout**

## Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **10 %**
- Size with trub loss **22 liter(s)**
- Boil time **90 min**
- Evaporation rate **15 %/h**
- Boil size **26.9 liter(s)**

## Mash information

- Mash efficiency **60 %**
- Liquor-to-grist ratio **3.8 liter(s) / kg**
- Mash size **33.8 liter(s)**
- Total mash volume **42.7 liter(s)**

## Steps

- Temp **62 C**, Time **30 min**
- Temp **68 C**, Time **20 min**
- Temp **72 C**, Time **10 min**
- Temp **78 C**, Time **5 min**

## Mash step by step

- Heat up **33.8 liter(s)** of strike water to **67.5C**
- Add grains
- Keep mash **30 min** at **62C**
- Keep mash **20 min** at **68C**
- Keep mash **10 min** at **72C**
- Keep mash **5 min** at **78C**
- Sparge using **2 liter(s)** of **76C** water or to achieve **26.9 liter(s)** of wort

## Fermentables

| Type | Name | Amount | Yield | EBC |
|---|---|---|---|---|
| Grain | Strzegom Monachijski typ II | 3 kg *(21.6%)* | 79 % | 22 |
| Grain | Pilzneński | 3 kg *(21.6%)* | 81 % | 4 |
| Grain | Strzegom Karmel 600 | 0.7 kg *(5%)* | 68 % | 601 |
| Grain | Strzegom Czekoladowy jasny | 0.7 kg *(5%)* | 68 % | 400 |
| Grain | Jęczmień palony | 0.7 kg *(5%)* | 55 % | 985 |
| Grain | kawowy jasny | 0.8 kg *(5.8%)* | 68 % | 250 |
| Adjunct | Oats, Flaked | 0.8 kg *(5.8%)* | 80 % | 2 |
| Adjunct | Briess - Barley Flakes | 0.4 kg *(2.9%)* | 70 % | 3 |
| Adjunct | Briess - Red Wheat Flakes | 0.4 kg *(2.9%)* | 70 % | 4 |
| Liquid Extract | ekstrakt słodowy ciemny Bruntal | 3.4 kg *(24.5%)* | 90 % | 621 |

## Hops

| Use for | Name | Amount | Time | Alpha acid |
|---|---|---|---|---|
| Boil | lunga | 50 g | 90 min | 11.6 % |
| Boil | Marynka | 20 g | 90 min | 10 % |

## Yeasts

| Name | Type | Form | Amount | Laboratory |
|---|---|---|---|---|
| FM13 Irlandzkie Ciemności | Ale | Slant | 1000 ml | Fermentum Mobile |

## Extras

| Type | Name | Amount | Use for | Time |
|---|---|---|---|---|
| Spice | lukrecja | 30 g | Boil | 30 min |
| Spice | kakaowiec | 50 g | Boil | 20 min |
| Spice | goździki | 20 g | Boil | 20 min |
| Spice | kakaowiec | 50 g | Secondary | 5 day(s) |

## Notes

- Schłodzić piwo do 20 stopni, potem mocno napowietrzyć.
  Wody wysłodowe można użyć do zrobienia stouta.

  Fermentacja burzliwa w temp 19 C przez 14 dni.
  Fermentacja cicha w temp 19 C przez 21 dni.
  Odfermentować do 5-9 Blg.
  Butelkować z dodatkiem 50 g rozpuszczonego ekstraktu ciemnego z dodatkiem gęstwy.
  Re-fermentacja przez 30 - 60 dni w temp 21 C.
  Leżakować przez rok.
  *Jan 9, 2016, 7:58 PM*