

# Standard Code Signing on a card certificate activation

Ver. 2.9

assecO

 **Certum**  
by assecO

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## 1. Product description

The Code Signing certificate allows you to digitally sign applications and drivers, certifying their authenticity and security. Thanks to this, users of your software can be sure that it has not been modified, infected or damaged by third parties.

Signing the application with Code Signing eliminates the problem of code anonymity on the internet. With a digital signature you can be sure that users will not see an "unknown publisher" warning when installing or running your program and they will be ensured about its security. Signing your app helps protect both: your users and your brand's reputation.

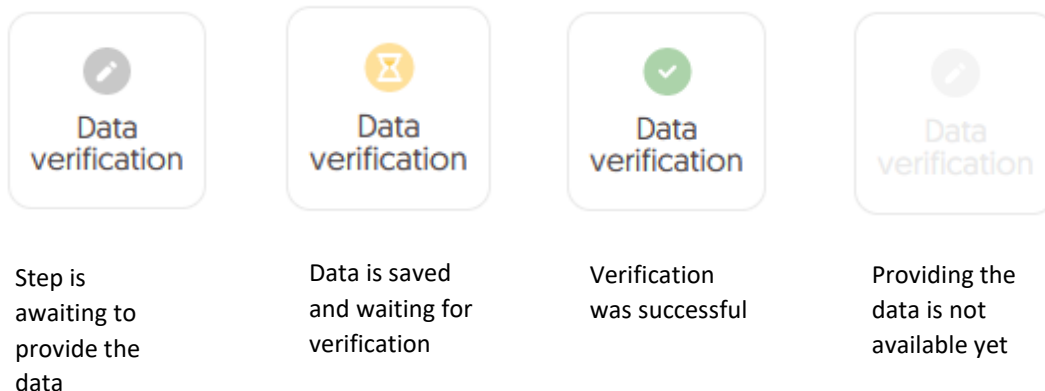
Digital code signing makes using the application safe, which translates into greater trust in your brand and an expansion of your group of users.

## 2. Certificate activation

You will be able to start the activation process of your certificate in the store at **My account** in the **Data security products** tab. The process consists of several steps:

- **Data verification** – providing the subscriber and/or organization's data and the verification
- **Certificate activation** – key pair generation, choosing the fields to include in the certificate and submit to issue.

As the activation process goes, each step will go through the next statuses:



## Data verification step

Providing data to be verified is the step in which you provide, depending on the chosen variant, the data of the organization for which the certificate will be issued, the data of the subscriber (the person who represents the organization and will be the owner of the certificate) and the data of the subscriber's authorization to represent the organization. From the data provided here, it will be possible to select data for the certificate in the last step of certificate activation.

The list of supported verification documents you can check at [Information about required documents](#).

You will be able to start the data verification step from **Dashboard**, using **Data verification** option:

The screenshot shows the Certum dashboard interface. On the left, there is a navigation menu with 'Dashboard', 'Certificates', and 'Certificates search'. The main content area is divided into several sections:

- Hello:** A welcome message stating 'You have logged in to the data security products panel where you can activate, check the status and manage them.' accompanied by a Certum logo icon.
- Events:** A table with columns for 'Events', 'Product', and 'Event date', currently empty.
- Useful information:** A text block explaining the product activation process, including providing organization and subscriber data, domains, and keys.
- Useful sources:** A list of links: 'Automatic Subscriber verification', 'Help, required documents', 'CSR and PFX generator', and 'Our products'.
- Code Signing:** A detailed view for a specific certificate. It shows the order number 'ORDER/0000123456/po9' and two progress indicators: 'Data verification' (highlighted with a red box) and 'Certificate activation'. Below this, it lists:
  - Product: Standard Code Signing 365 days - issue
  - Status: Waiting for activation
  - Common name: -
  - Certificate expires: -

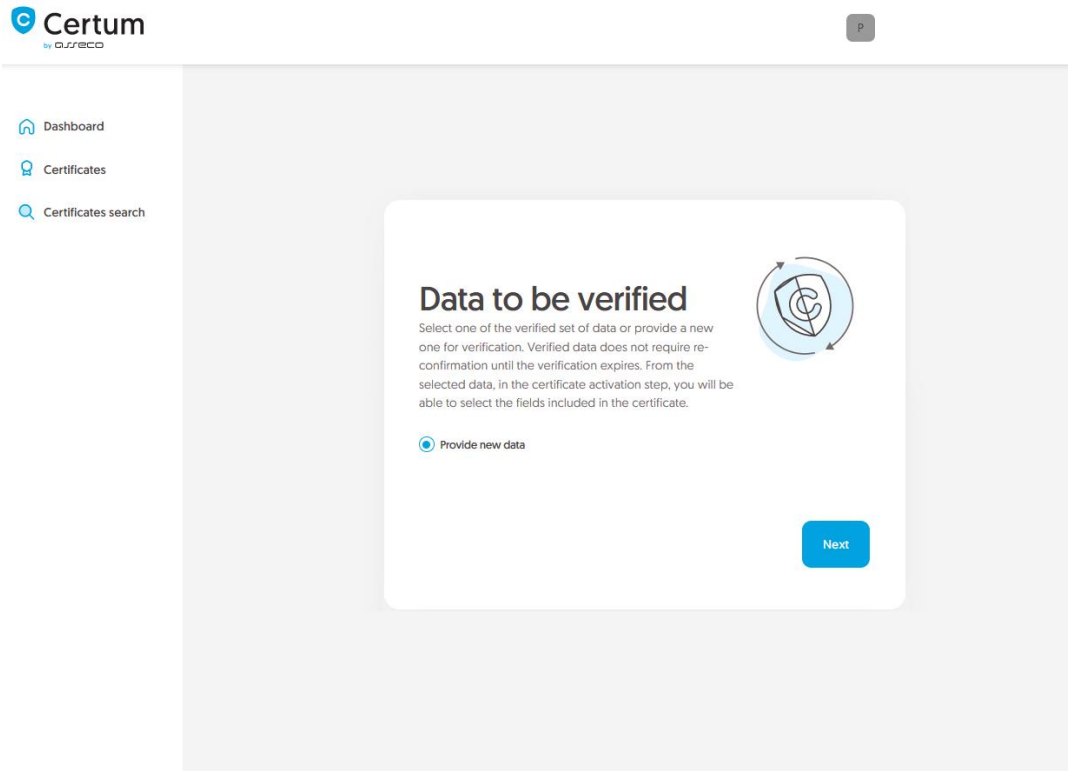
or from the **Certificates** list – choose the certificate you want to activate and use **Provide the data** option in the subscriber's data section:

### Choosing a variant of the data to be verified

Choose one of three options for providing data to be verified:

- **Individual** – the certificate contains the subscriber's data, the subscriber's identity will be verified and his address details are provided in the fields for organization data. The Common name of the certificate contains the name and surname of the subscriber
- **Organization** – the certificate contains the organization's data, the subscriber's data, organization existence and the subscriber's authorization to represent the organization are verified. The Common name of the certificate contains the organization name
- **Sponsor** – the certificate contains the subscriber and organization's data, the subscriber's identity, organization existence and the subscriber's authorization to represent the organization are verified. The Common name of the certificate contains the name and surname of the subscriber.

The wizard will guide you through the process of providing the data. In the first stage, choose **Provide new data**. In the future, it will be possible to use them to issue another certificate.



In the next stage, provide the details of the subscriber, which means the person who represents the organization and will be the owner of the certificate. Please write the names and surnames in the form as they appear on the subscriber's identity document.

Also choose a method for verifying the subscriber's identity from the available ones:

- **Automatic identity verification** – the subscriber will receive an e-mail with a link to the identity verification service to use with a computer or phone camera and an ID document
- **Attaching a document** – you will add a scan of the subscriber's identity document or an identity confirmation.

**Certum**  
by DJRRECO

Dashboard  
Certificates  
Certificates search

Subscriber Organization Authorization Summary

### Subscriber data

The Subscriber is a person who will be the owner of the certificate: the data of him or her or related organization that he or she can represent will be available to include in the certificate (depending on the product type). After completing the step of providing the data to be verified, Subscriber will be asked to verify his/her identity with an **identity document** using one of the available verification methods.

NAME\*

Joe

SURNAME\*

Doe

Verification method

Automatic identity verification  Add the document to verify Subscriber's identity

E-MAIL ADDRESS OF THE SUBSCRIBER\*

joedoe@yourdomain.com

In the case of **automatic identity verification**, the Subscriber will receive a link and instructions to start the process to this e-mail address. The link will be sent after saving the data to be verified.

Back Next

After providing the subscriber's data, go to the next stage: providing the organization's data.

For **individual** certificate variant, provide address details of subscriber's residence. Next, go to the data verification step [summary](#).

**Certum**  
by GRSPEC

Dashboard  
Certificates  
Certificates search

Chose data to be verified   Subscriber   **Organization**   Summary

## Organization data

Provide the data to let us verify your organization existence. From this data you will be able to choose the fields to include in the certificate.

The data of the organization

ORGANIZATION\*

Joe Doe

Headquarters of the organization

COUNTRY\*

Polska

STATE OR PROVINCE\*

mazowieckie

LOCALITY\*

Warszawa

**i** As a natural person you do not represent any organization. Provide the Subscriber's address data, which will be included in the certificate.

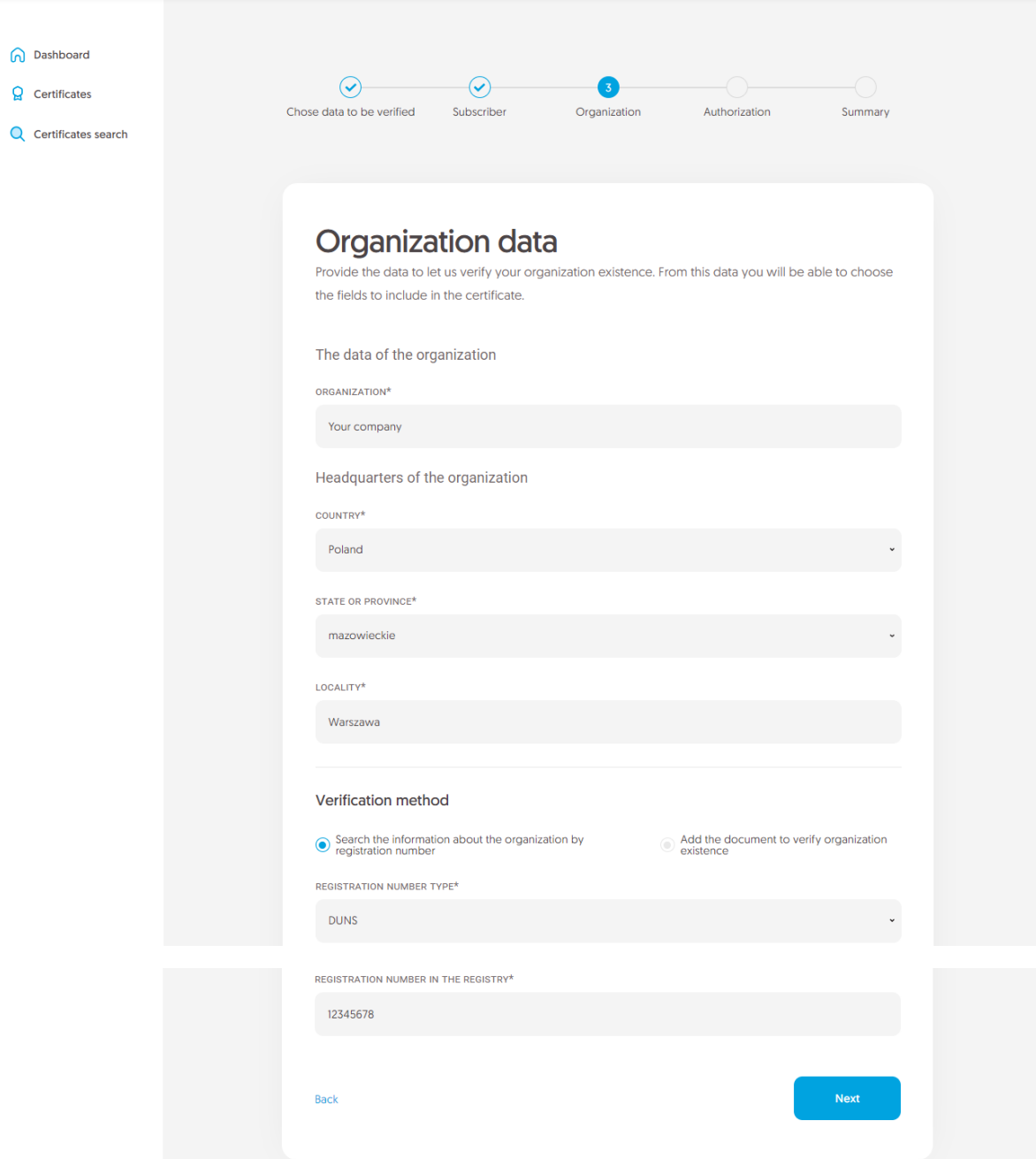
Back   Next

For **organization** and **sponsor** certificate variant provide the organization's details and the address of its headquarters. The data will be used to verify the existence of the organization.

Choose also how Certum will verify the existence of the organization:

- **By registration number** – Certum will search for information about the organization in the public register using the provided number
- **Attaching a document** – you will add a document confirming the establishment of the organization.





Dashboard

Certificates

Certificates search

Chose data to be verified

Subscriber

3 Organization

Authorization

Summary

## Organization data

Provide the data to let us verify your organization existence. From this data you will be able to choose the fields to include in the certificate.

The data of the organization

ORGANIZATION\*

Your company

Headquarters of the organization

COUNTRY\*

Poland

STATE OR PROVINCE\*

mazowieckie

LOCALITY\*

Warszawa

Verification method

Search the information about the organization by registration number

Add the document to verify organization existence

REGISTRATION NUMBER TYPE\*

DUNS

REGISTRATION NUMBER IN THE REGISTRY\*

12345678

Back

Next

After providing all the required organization's data, proceed to the last stage of providing data for verification step, which is choosing the method of verifying the subscriber's authorization to represent the organization. This stage is required for **organization** and **sponsor** variants of certificate.

There are two methods to choose from:

- **The subscriber is visible in the registry** – the person given as the subscriber appears in one of the given registers as a representative of the organization
- **Attaching a document** – you will add a document confirming authorization. You can download an example of such document by the **Download ready to sign authorization document** link.

The method of verifying the subscriber's authorization is also influenced by the organization's chosen verification method. If the registration number and its type have been provided there, Certum will first check whether the subscriber is listed in the register and the system will automatically mark the method of verifying the subscriber's authorization as "The subscriber is visible in the register". However, this does not prevent you from adding a document confirming the subscriber's authorization.



The screenshot shows the Certum by CSESCO web interface. On the left is a navigation menu with 'Dashboard', 'Certificates', and 'Certificates search'. The main content area displays a progress bar with five steps: 'Chose data to be verified', 'Subscriber', 'Organization', 'Authorization', and 'Summary'. The 'Authorization' step is currently active, indicated by a blue circle with the number '4'. Below the progress bar is a white card titled 'Authorization data' with the instruction: 'Choose the verification method to confirm the Subscriber's relationship with the organization.' The card contains the following information:

- Subscriber data:** Name: Joe, Surname: Doe
- Verification method:** Two radio button options:
  - Subscriber is visible in DUNS, LEI or other registry as organization's representative
  - Add the document to verify Subscriber's relationship with the organization
- Chosen registry type:** DUNS 12345678




At the bottom of the card are 'Back' and 'Next' buttons.

After selecting the authorization verification method go to the next stage.

#### Data verification step summary

Check provided information on the summary screen. If the data is correct, mark the required statements and complete the step of providing data to be verified.

The success screen will inform you that the data have been saved for verification. Certum will verify them. During this time, if you want to add another document confirming the provided data, you can add it in the certificate details. This is also the time to perform automatic verification of the subscriber's identity, if such verification method has been chosen. You may check the [instruction for automatic identity verification](#).

-  Dashboard
-  Certificates
-  Certificates search



## Success!

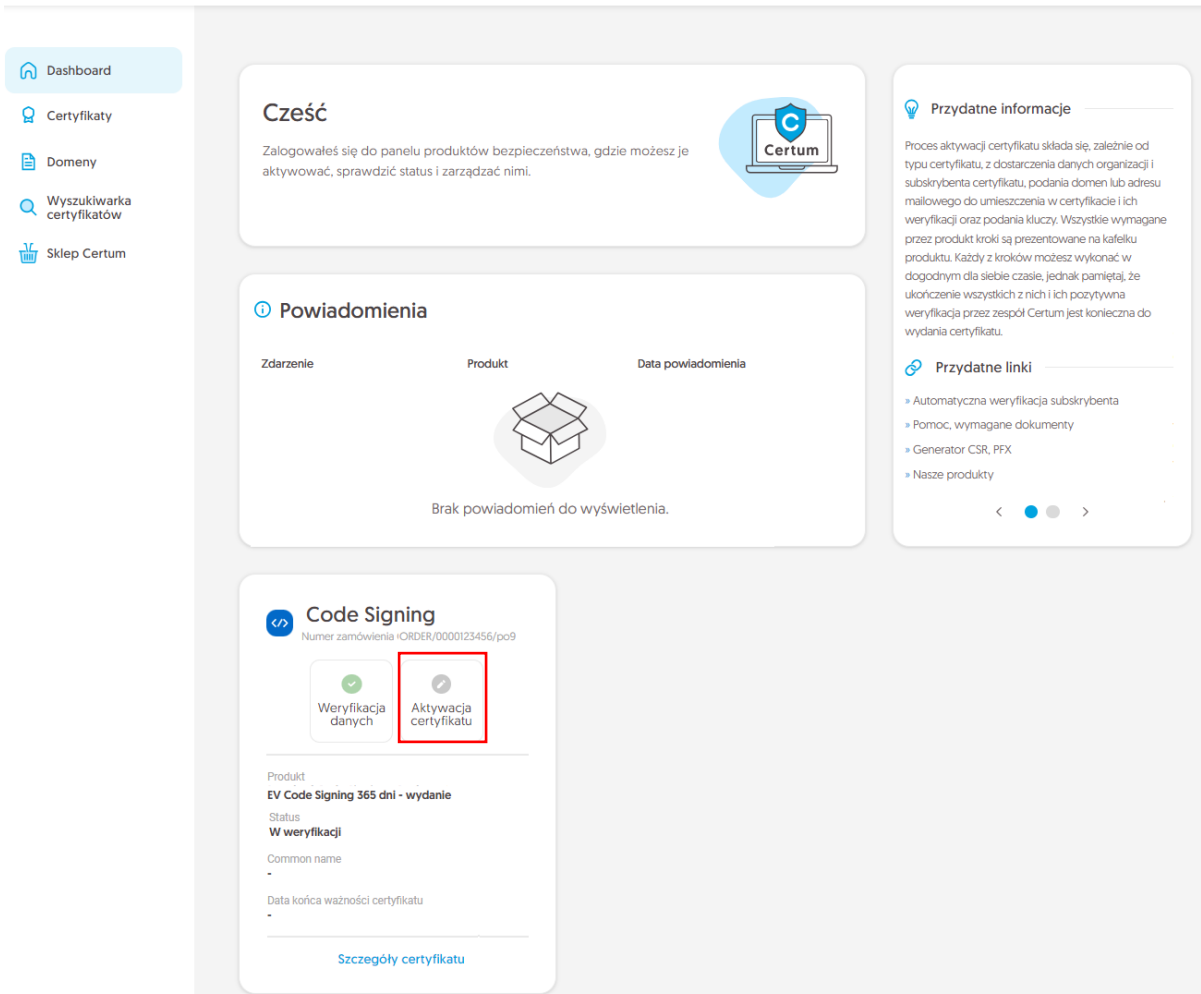
The data was saved and submitted for verification. The verification usually takes from 1 to 7 days. Positive data verification will allow you to proceed to the next step of the certificate activation.

[Go to dashboard](#)

Positive verification of the provided data will allow you to go to the **Certificate activation**.

### Certificate activation step

You will be able to start certificate activation step from **Dashboard**, using **Certificate activation** option:



or similar to the previous step: from the **Certificates** list – choose the certificate you want to activate and use **Activate certificate** option.

In this step, you will choose the fields you want to include in the certificate and generate key pair.

Choose the fields you want to include in the certificate. Some fields are required and cannot be unmarked.

The screenshot shows the Certum by QSR/ECO web interface. At the top left is the Certum logo. A navigation menu on the left includes 'Dashboard', 'Certificates', and 'Certificates search'. A progress bar at the top of the main content area shows four steps: 'Certificate data' (active, marked with a blue '1'), 'Generation method', 'Key pair generation', and 'Summary'. The 'Certificate data' section is titled 'Certificate data' and includes a sub-header 'Code Signing Standard Code Signing 365 days - issue'. Below this, there are four fields with checkboxes: 'Common name: Joe Doe', 'Organization (O): Your company', 'Locality (L): Warszawa', and 'State or province (SP): mazowieckie'. A mouse cursor is hovering over the 'State or province (SP)' field.

Once you have chosen the fields to the certificate, go to the key pair generation.

For Code Signing certificates, the available key generation method is **Generating key pair on card** – the keys will be saved on the cryptographic card.

When choosing a method for generating key pair on card, also choose the algorithm and key length. Your choice should depend on the algorithm and key length supported by the application in which you use the certificate or the recommendation of e.g. your IT department.

After selecting the method for generating key pair on card, choose the algorithm and key length.

## Key pair generation method

Generating key pair with Certum SignService application allows you to store keys on a cryptographic card.

### Key pair generation method

Generating key pair on card

#### KEY ALGORITHM AND KEY LENGTH

RSA 3072

The CSR method will allow you to obtain a certificate with a key in a form that can be transferred and installed from a file. Remember to save a private key generated with your CSR. Generating keys on the card will cause that the certificate will be installed on the cryptographic card and its connection to the computer will be required whenever the certificate is used. Only Certum cards are supported.

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[Next](#)

In the next stage, make sure that you have the card inserted into the reader, the reader connected to the computer and the card itself has an initialized common profile with a PIN code set for it. The process also requires having the proCertum CardManager application installed on your computer, where you can also check the status of the card and the status of PIN and PUK codes.

You may check the instruction of [how to assign PUK and PIN codes for the first time](#).

## Key pair generation

Follow the instruction below to generate key pair.

[Download Certum SignService app](#)

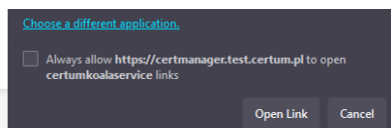
1. Download and install the **Certum SignService** application.
2. Download and install the **proCertum CardManager** application if you don't have it installed or it requires updating.
3. Connect the card reader to the computer and insert the card.
4. Open the **proCertum CardManager** application and check if common profile of the card is initialized.  
Application will ask to set PIN and PUK codes of the card if it needs to be initialized.
5. Start the key pair generation process using **Generate key pair** button.
6. Accept the prompt message from you browser about running the Certum SignService application.
7. When Certum SignService window appears, enter the PIN code for the common profile of your card.
8. Wait until the key pair is generated, it may take up to several minutes.

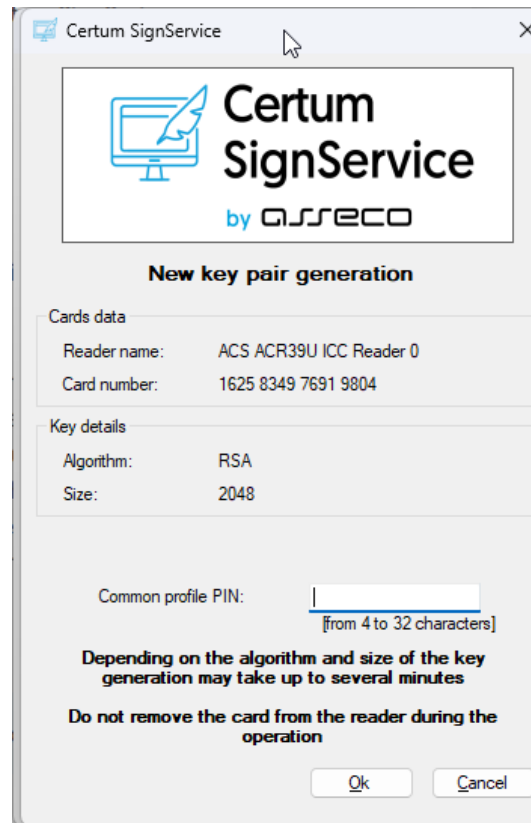
i When the key pair is generated, next window of the wizard will appear.

[Back](#)

[Generate key pair](#)

To generate keys on the card, you will also need the Certum SignService application installed on your computer. After starting key generation, the Certum SignService application can ask for permission to run and then to provide the PIN code of the card's common profile in order to generate keys on it.





After providing the PIN code, the key generation process will begin on the card. This may take up to a few minutes. Once the key is generated, the process will proceed to the summary.

Check all of provided data. Mark the required statements if needed and complete certificate activation.

The success screen will inform you that the certificate has been submitted for issuance. Certum will finally verify the data in the certificate and after positive verification, will issue it. The issued certificate can be downloaded from the certificate creation e-mail or from the certificate details view: in a convenient **PEM** or **DER** encoding. You can install your certificate on the cryptographic card from the certificate details view.

From the certificate details view you can also download subordinate certificates for your certificate.