

TAKE YOUR KNOWLEDGE TO THE NEXT LEVEL.

IAPD's certificate program  
**CANDIDATE HANDBOOK**  
and study guide



**iapd**

international association  
of plastics distribution



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# INTRODUCTION

The IAPD Certificate Program was developed by the IAPD Education Committee in an effort to help educate and evaluate sales professionals in the plastics distribution industry. It is based on a broad understanding of the plastics distribution industry.

Though this product comes in the form of a test, it is meant as an educational tool for continued learning. Candidates have 30 days to take the exam. They may take it all in one sitting or treat it like an open-book test and use the 30 days to research the answers they currently do not know. Candidates should talk with their supervisor to determine which is the best for their organization.

There are five areas covered in this exam:

Section I.	Understanding Physical Properties and Processes	25 to 30 percent
Section II.	Common Plastics Materials	35 to 40 percent
Section III.	Typical Fabrication Methods	10 to 15 percent
Section IV.	Understanding Fillers and Enhancements	5 to 10 percent
Section V.	Selling The Product	15 to 20 percent

## The Exam:

The exam is a 100-item, multiple-choice test given online through the IAPD web site. Candidates will receive a pass/fail notification after completion of the test.

Candidates interested in taking the exam for the IAPD Certificate Program should read through the exam content portion of this handbook. Once a candidate feels prepared to take the exam, he or she should submit an application and the appropriate fee to IAPD headquarters. Applications will be reviewed by the program administrator within 15 days. If candidates meet the eligibility requirements listed below, they will be issued a password via e-mail. This password will be good for 30 days, and the exam must be completed within the 30-day timeframe.

If candidates do not achieve a passing score on the exam or if they fail to complete the exam within the 30-day period, they will need to wait 90 days prior to re-taking the exam.

## Eligibility:

In order to be eligible to sit for the exam, candidates must currently be employed within the plastics distribution industry. Candidates must also adhere to the IAPD Code of Ethics which can be found on page 11.

## Exam Fees:

\$79 per candidate for IAPD members

*(For more than three applicants from the same company applying simultaneously, the fee is \$69 per person.)*

\$149 per candidate for IAPD nonmembers

\$25 re-test fee. Candidates must re-apply.

## Administration:

The Education Committee, in conjunction with the IAPD Board of Directors, manages the certificate policy and procedures. Communication with IAPD members about the certificate program is handled by a program administrator. The administrator may be reached at:

IAPD Certificate Program Administrator  
c/o International Association of Plastics Distribution  
6734 W. 121st Street  
Overland Park, KS 66209 USA  
+913.345.1005 Fax +913.345.1006  
www.iapd.org or e-mail: iapd@iapd.org

# STUDY QUESTIONS AND EXAM CONTENT

The questions on the exam are based on the following outline. The percentages noted indicate the approximate portion of the exam devoted to each area.

This is meant to be used as just one tool to help you prepare for the IAPD Certificate Program examination. Answering the questions in this handbook does not guarantee you will pass the exam. Reviewing these items will help you assess your strengths and weaknesses and help you to identify areas in which you may need more study.

## SECTION I. UNDERSTANDING PHYSICAL PROPERTIES AND PROCESSES 25 to 30 percent

### 1. Introduction (overview of plastics industry)

### 2. Plastic Materials

- a. Polymer chains
- b. Crystalline and Amorphous
- c. Thermoplastics and Thermosets
- d. Altering Physical Properties

### 3. Understanding Physical Properties

- a. Mechanical
- b. Thermal
- c. Electrical
- d. Weatherability
- e. Burning and Smoke

### 4. Processing Methods

- a. Extrusion
  1. Melt
  2. Paste
  3. Ram
- b. Molding
  1. Injection
  2. Compression
  3. Rotational
  4. Auto-molding
  5. Isostatic
- c. Other
  1. Casting
  2. Calendering
  3. Transfer Molding
  4. Laminating
  5. Filament Winding



2. Acetals
3. UHMW-PE
- b. Corrosion Resistant
  1. PVC/CPVC/Vinyls
  2. ABS/SAN
  3. Polyolefins (LDPE, LLDPE, HDPE, PP, others)
  4. Polystyrene
  5. The Polyblends (PVC/Acrylic; ABS/PVC; ABS/Polycarbonate)
- c. High Performance
  1. PEI
  2. PEEK
  3. PSU
  4. PAI/PI
  5. PES/PPS
  6. PPO
- d. Fluoropolymers
  1. PTFE
  2. FEP
  3. PFA
  4. ETFE
  5. PVDF/PVF
  6. PCTFE
  7. ECTFE
- e. Miscellaneous
  1. Polyurethane
  2. Cellulosics (Acetate/CAB)
  3. TPE - Thermoplastic Elastomers
- f. Thermosets
  1. Polyesters
  2. Phenolics
  3. Epoxies
  4. Silicones
  5. Ureas
  6. Melamines/Amino

**Which plastics are more resistant to sunlight? Weather? Corrosive materials?**

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**What are common properties of high performance materials?**

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**How do thermosets differ from thermoplastics?**

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**What are your strengths in this section? Weaknesses?**

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**How would you rate the extent of your knowledge in this area?**

1	2	3	4	5
Novice		Manager		Master

## **SECTION III.**

### **TYPICAL FABRICATION METHODS**

**10 to 15 percent**

#### **1. Machining**

- a. Screw
- b. Turning/Lathe
- c. Routing/Milling
- d. Sanding/Grinding/Planing
- e. Drilling
- f. Cutting

#### **2. Bending/General Fabrication**

#### **3. Bonding/Welding**

#### **4. Thermoforming**

- a. Drape Forming
- b. Vacuum Forming
- c. Pressure Forming

**What are some things to remember when machining plastics?**

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**What is the process used in thermoforming? In bonding?**

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**What are your strengths in this section? Weaknesses?**

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**How would you rate the extent of your knowledge in this area?**

1	2	3	4	5
Novice		Manager		Master

**SECTION IV.**  
**UNDERSTANDING FILLERS AND ENHANCEMENTS**  
**5 to 10 percent**

- 1. Improving Wear and Structural Properties**
- 2. Improving UV Resistance**
- 3. Improving Lubricity**
- 4. Conductivity & Static Dissipative**
- 5. Flame Retardancy/Low Smoke Generation**
- 6. Other Fillers & Colorants**

**Why are additives used with plastic materials?**

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**What are the common fillers typically used in engineering plastic materials?**

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**What are your strengths in this section? Weaknesses?**

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**How would you rate the extent of your experience in this area?**

1	2	3	4	5
Novice		Manager		Master

**SECTION V.**  
**SELLING THE PRODUCT**  
**15 to 20 percent**

- 1. Introduction to Customer Service**
  - Putting Service into Customer Service
  - Internal Versus External Customers

c. Customer Service Throughout the Firm:

1. Inside Sales
2. Outside Sales
3. Warehouse/Shipping
4. Management
5. Support Services
6. Manufacturing

**2. Distribution and Manufacturing — An Overview**

- a. Understanding Marketing Channels
- b. Improving Channel Partner Relationships

**3. Listening Skills**

**4. Telephone Techniques**

**What are the skills needed to close a sale?**

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**How do you overcome price objection?**

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**How should salespeople work with other departments in the company?**

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**What are some of the challenges in distributor-manufacturer relations?**

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**What are your strengths in this section? Weaknesses?**

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**How would you rate the extent of your knowledge in this area?**

1	2	3	4	5
Novice		Manager		Master

# SUGGESTED RESOURCES

## IAPD PUBLICATIONS:

*Introduction to Plastics*. 11th Edition. IAPD, Overland Park, KS, USA, 2010.

*The IAPD Plastics Primer: Self-Study Edition*. IAPD, Overland Park, KS, USA, 2005.

*We Are Customer Service*. IAPD, Overland Park, KS, USA, 2001.

*Thermoplastics Rectangle*. IAPD, Overland Park, KS, USA, 2001.

## SPECIAL PACKAGE DEAL

For your convenience, IAPD is offering the *Introduction to Plastics* and *The IAPD Plastics Primer: Self-Study Edition* at a special member rate of \$149 (including shipping within the United States). Nonmembers can get this special package for \$205. Call +913.345.1005 for details.

## ADDITIONAL RESOURCES:

### TEXTS AND TRAINING MANUALS

Kahle, Dave. *How to Excel at Distributor Sales*. Grand Rapids, MI, 2000.

### PERIODICALS

*The IAPD Magazine*. IAPD, Overland Park, KS, USA. A searchable archive of articles is available at [www.theiapdmagazine.com](http://www.theiapdmagazine.com).

### VIDEOS, CDS AND DVDS

Holmes, Chuck. *Advanced Inside Sales*, AEA, Chicago, IL, USA. 2004. (Interactive CD)

Ellers, Joe. *The Perfect Sales Call*, AEA, Chicago, IL, USA. 2000. (Video and guide)

*Understanding Plastics*. Stout Foundation, 1987. (Video)

These resources are recommended because they provide a good foundation and overview of the concepts necessary to be successful in the plastics distribution industry. The IAPD Certificate Program is not directly tied to or based on these recommended resources. Merely reading these publications does not ensure you will pass the examination.

Candidates must keep up-to-date on plastics distribution issues by attending educational programs, reading *The IAPD Magazine*, visiting IAPD's web site and by referencing other sales-, distribution- or plastics-related publications.

Contact IAPD for more information on these items.

# IAPD CODE OF ETHICS

Inasmuch as the plastics industry is a new industry to the United States of America, and whereas we as distributors are the liaison between the plastics industry and industry and commerce in general, therefore, to foster mutual trust between ourselves, our industry and the general public we are resolved to abide by the following code of ethics:

We shall promote and support the distribution channel as a means to bring product to market.

We shall refer to all products by their trademark, generic name or chemical formulation as solicited, and clarify the differences in either or all three of the classifications as the case arises.

We shall substitute competitive brands from a trademark solicited, only upon approval of the buyer.

We shall educate the buyer on our products without misrepresenting their advantages or disadvantages, and promote the use of the various products for the physical, chemical and electrical properties for which they excel.

We will accurately represent and advertise our merchandise and services.

In ever changing conditions in the plastics field, we will always be alert to new products which will benefit our customers.

We shall comply fully with federal, state and local antitrust laws in all association activities.

# CANDIDATE CONFIDENTIALITY AGREEMENT

All candidates must also agree to the Candidate Confidentiality Agreement.

By applying for the test, you indicate you understand, acknowledge and agree to the following:

That the questions and answers on the exam are the exclusive and confidential property of IAPD.

That you may not disclose the exam questions or answers or discuss any of the content of the exam materials with any person, without prior written approval of IAPD.

Not to copy or attempt to make copies (written, photocopied, or otherwise) of any exam material, including, without limitation, any exam questions or answers.

Not to sell, license, distribute, give away, or obtain from any other source other than IAPD the exam materials, questions or answers.

*Your obligations under this agreement shall continue to be in effect after the examination and, if applicable, after termination of your certificate, regardless of the reason or reasons for termination, and whether such termination is voluntary or involuntary.*

# IAPD CERTIFICATE PROGRAM APPLICATION FORM

Name		Title	
Company			
Address			
City	State/Province	ZIP/Postal Code	Country
Telephone	Fax	E-mail	

## EMPLOYMENT

Position:  Inside Sales       Outside Sales       Management       Operations  
 Other: \_\_\_\_\_

What was your first year in the plastics distribution industry? \_\_\_\_\_

## EDUCATION

Level of Education (check all that apply):

High School Diploma       Associate's Degree       Bachelor's Degree       Master's Degree

Other certificates, certifications or licenses currently held \_\_\_\_\_

## FEES

IAPD Member: \$79.     Nonmembers: \$149.  
 IAPD Member with three or more applicants: \$69. All must apply at the same time. Photocopy this form as needed and send to IAPD together. Please attach a list of all other applicants' names.

## PAYMENT

All fees must accompany the application.

Total amount due: \_\_\_\_\_

Check Enclosed       American Express       Discover       Mastercard       Visa

Credit Card Number \_\_\_\_\_ Expiration Date \_\_\_\_\_

Cardholder's Name \_\_\_\_\_ Billing Address (If Different From Above) \_\_\_\_\_

Authorized Signature \_\_\_\_\_

**Your password will expire after 30 days. Be sure you are prepared to take the test before sending in your application.**

Please send me my personal password. I am ready to take the test.

I agree to abide by IAPD's Code of Ethics and the Candidate Confidentiality Agreement on page 11.

Signature \_\_\_\_\_ Date \_\_\_\_\_

### Return completed form and payment to:

IAPD Certificate Program  
 6734 W. 121st Street  
 Overland Park, KS 66209 USA  
 or fax to: +913.345.1006

<b>For office use only:</b>
Date: .....
Ref: .....
Amt: .....
GL: .....