

# Synthesia Internacional Main products

### PU SYSTEMS (INDUSTRIAL PRODUCTS & PREPOLIMERS)













### MARKETS SUPPLIED BY SYNTHESIA INTERNACIONAL

• RIGID FOAM: HIGH DENSITY PU - LOW DENSITY • RIGID FOAM: ELASTOMERS - WOOD IMITATION HIGH DENSITY SPRAY FLEXIBLE FOAM • INTEGRAL SKIN FOAM SPECIALTIES



### SYNTHESIA PRODUCTS

MARKETS	SYNTHESIA SYSTEMS	APLICATIONS	
RIGID FOAM: LOW DENSITY	POURING SYSTEMS	Industrial Insulation: Panneling, refrigeration equipment, thermal tanks, Filling of all type of cavities	
RIGID FOAM: WOOD IMITATION	SYNTHEMAD	Furniture: Imitation Wood, Chairs, Sofas, Armchairs, Armrests, Decoration: Pictures frames, Beams,	
FLEXIBLE FOAM	SYNTHEFLEX	Furniture and Automobile Industries: Seats, backrests, Viscoelastic foams	
INTEGRAL SKIN FOAM	SYNTHEFOAM	Furniturre and Automobile Industries:Seats, backrests, stools, steering wheels,	
HIGH DENSITY PU	STRUCTURAL FOAM STS.	Moulded pieces with high hardness and good physical and mechanial properties	
ELASTOMERS	URELAST	Moulded pieces with different shore hardness.  Good physical and mechanical properties	
HIGH DENSITY SPRAY	H D SPRAY	Designed to improve the final properties of several types of PU. Excellent adhesion to all substrates	
SPECIALTIES	OTHER SYSTEMS	Packaging, Floral foams, Surfboards, Sutters, Window profiles, Shoe pieces, spolilers, adhesives, etc.	



#### Rigid Foam: 1.A Low Density

#### **POURING SYSTEMS: CHARACTERISTICS**

- Two Components:
  - Polyol A + Isocyanate B
- High Suitable Systems for the production of rigid foams.
- Indicated for the insulation and filling of all type of cavities
- Free of CFCs and HCFCs
- Densities between 30 –60 kg/m3
- Work Times: 6 40 s depending on the system.
- Initial Thermal Conductivity Coefficient 0,022 W/mK









### Rigid Foam: 1.A Low Density POURING SYSTEMS: MAIN REFERENCES

POURING SYSTEM (Polyol / Isocyanate)	FREE DENSITY (Kg/m3)	MIX RATIO Pol : Iso (Weight)	WORK TIME (s)	APPLICATIONS
9395 / H25C	31	100 :135	12	Panelling
9425 / H25C	33	100 :125	12	Filling all type of cavities, thermal tanks, etc
481 / H25C	36	100 :112	15	Filling all type of cavities, thermal tanks,etc
9762 / H25C	36	100 :110	20	Filling all type of cavities, thermal thanks, boats, etc
9758-X / H25C	35	100 :100	20	Filling all type of cavities with good behavior in fire (TAC; B2)
9932 / H25C	32	100 :105	40	Filling all type of big cavities
9154 / H25C	42	100 :105	45	Filling all type of big cavities with high density
560BL / H25C	46	100 :105	34	Furniture Industry: Low density wood imitate, Beams, adornments, etc
9154-X-60 / H25C	60	100 :100	45	Filling all type of big cavities with high density



#### **Rigid Foam: 1.B Wood Imitation**

#### **SYNTHEMAD: CHARACTERISTICS**

- Two Components:
  - Polyol A + Isocyanate B
- These Systems are designed for the production of moulded pieces in a broad range of densities
- Free of CFCs and HCFCs
- Densities between 60 –750 kg/m3
- Work Times: 20 50 s depending on the system









### Rigid Foam: 1.B Wood Imitation SYNTHEMAD: MAIN REFERENCES

SYNTHEMAD (Polyol / Isocyanate)	FREE DENSITY (Kg/m3)	MIX RATIO Pol : Iso (Weight)	CREAM TIME (s)	WORK TIME (s)	APPLICATIONS
9372-A-70 / H30	70	100 :120	22	115	Beams, mouldings, adornments, frames, etc
9654-A-80 / H30	85	100 :110	23	85	Beams, mouldings, adornments, frames, etc
9111-X-AE / H30	110	100 :125	30	Several sectors: Furniture industindustry, etc. Good behavior in fi	
9295-A-120 / H30	120	100 :100	30 130		Several sectors: Furniture industry, car industry, etc
9369-X-150 / H30	155	100 :100	26	80	Several sectors: Furniture industry, car industry, etc
490-X-200 / H30	200	100 :100	30	95	Several sectors: Furniture industry, car industry, technical parts, etc
9411-AE / H30	235	100 :100	27	90	Several sectors: Furniture industry, car industry, technical parts, etc. Good behavior in fire (B2)
9466-S-400 / H30	400	100 :100	33	110	Several sectors: Furniture industry, car industry, technical parts, etc



#### Flexible Foam

#### **SYNTHEFLEX: CHARACTERISTICS**

- Two Components:
  - Polyol A + Isocyanate B
- These Systems are designed for the production of coldmoulded flexible foams
- Densities between 45-60 kg/m3. Some of them > 100 kg/m3.
- Work Times: 8 20 s depending on the system









### Flexible Foam SYNTHEFLEX: MAIN REFERENCES

SYNTHEFLEX (Polyol / Isocyanate)	FREE DENSITY (Kg/m3)	MIX RATIO Pol : Iso (Weight)	ISO	APPLICATIONS
9735-M-40 / 5669	40	100 : 75	MDI	Furniture and Automobile Industries: Seats, backrests, headrests, etc
9735-M-50/ 5669	50	100 : 60	MDI	Furniture and Automobile Industries: Seats, backrests, headrests, etc
9735BS-M-57/ 5669	56-62	100 : 60	MDI	Furniture and Automobile Industries. Good behavior in fire (BS5852 fulfilled)
9145P-M-60/ 5669	55	100 : 60	MDI	Furniture and Automobile Industries: Seats, backrests, headrests, etc
9676 / 5652	45	100 : 55	TDI	Furniture and Automobile Industries: Seats, backrests, headrests, bicycle seats, etc
9676BS / 5652	55	125 : 55 ó 100 : 45	TDI	Furniture and Automobile Industries: Seats, backrests, headrests, bicycle seats, etc. Good behavior in fire (BS5852 fulfilled)
9752-M-135 / 5669	135	100 : 44	MDI	Manufacture of articles for the toy industry
9267-M-250 / 5669	235	100 : 40	MDI	Manufacture of high density technical pieces
7023BD / 5669	60	100 : 45	MDI	Viscoelastic Foams
7023BD / 5652	60	100 : 38	TDI	Viscoelastic Foams



#### **Integral Skin Foam**

#### **SYNTHEFOAM: CHARACTERISTICS**

- Two Components:
  - Polyol A + Isocyanate B
- These Systems are designed for the production of semirigid integral skin foams
- Free of CFCs and HCFCs
- Densities between 120-450 kg/m3
- Work Times: 15 25 s depending on the system









### Integral Skin Foam SYNTHEFOAM: MAIN REFERENCES

SYNTHEFOAM (Polyol / Isocyanate)	FREE DENSITY (Kg/m3)	MIX RATIO Pol : Iso (Weight)	CREAM TIME (s)	APPLICATIONS
9876-X-110 / 5669	120	100 : 50	20	Furniture and Automobile Industries: Armrests, stools with comfort requirements
9368-X-140 / HT16	150	100 : 48	20	Furniture and Automobile Industries: Armrests, stools, steering wheels, finishes, etc
9368L-X-140 / HT16	140	100 : 48	30	Furniture and Automobile Industries: Armrests, stools, steering wheels, finishes, etc
9564AE-150/ HT16	158	100 : 43	20	Furniture and Automobile Industries: Armrests, stools, steering wheels, finishes, etc. Good fire behavior (UNE-EN 1021-2:2006)
7026/ 5700	200	100 : 52	22	Furniture and Automobile Industries: Armrests, stools, steering wheels, finishes, etc
7119 / 5700	235	100 : 50	35	Elastic compact pieces: Elastic molds for concrete, ceramic, etc



#### **High Density PU**

### STRUCTURAL FOAM SYSTEMS: CHARACTERISTICS

- Two Components:
  - Polyol A + Isocyanate B
- These Systems are designed for the production of high density pieces
- Moulded pieces with high hardness and good physical and mechanical properties
- Densities between 1000-1300 kg/m3.
- Work Times: 60- 240 s depending on the system.









## High Density PU STRUCTURAL FOAM SYSTEMS: MAIN REFERENCES

RIGIMERO (Polyol / Isocyanate)	FREE DENSITY (Kg/m3)	MIX RATIO Pol : Iso (Weight)	WORK TIME (s)	SHORE HARDNESS (Sh D) DIN 53505
9560 / H30	1250	100 : 60	70-100	80
9560 / HT16	1250	100 : 70	80-110	80
9560 / 5561	1180	100 : 100	90-120	75
9560 / 5563	1250	100 : 100	120-150	75
9560-80 / HT16	1250	100 : 80	80-110	80-85
9190 / HT16	1200	100 : 70	120-180	80
9190 / 5561	1200	100 : 100	240-300	75
7011 / H30	1050	100 : 56	150	75



#### **Elastomers**

#### **URELAST: CHARACTERISTICS**

- Two Components:
  - Polyol A + Isocyanate B
- Moulded pieces with good physical and mechanical properties
- Densities between 1000- 1100 kg/m3.
- Work Times: 5 60 min depending on the system.









### Elastomers URELAST: MAIN REFERENCES

URELAST (Polyol / Isocyanate)	DENSITY (Kg/m3)	MIX RATIO Pol : Iso (Weight)	WORK TIME (min)	SHORE HARDNESS (Sh A)	TENSILE STRENGTH (kg/cm2)	ELONGATION (%)	TEAR RESISTENCE (kg/cm)
9860-40 / 5700	1100	100 : 18	6	30-40	30 <u>+</u> 10	250 <u>+</u> 50	12 <u>+</u> 2
9860-55 / 5700	1100	100 : 25	5	55	40 <u>+</u> 10	250 <u>+</u> 50	15 <u>+</u> 2
9860-75 / 5700	1100	100 : 43	4	75	120 <u>+</u> 20	300 <u>+</u> 50	25 <u>+</u> 5
9860-95 / 5700	1100	100 : 65	4	95	150 <u>+</u> 10	150 <u>+</u> 50	50 <u>+</u> 10
9860-40HQ / 5700	1100	100 : 19	6	30-40	35 <u>+</u> 10	350 <u>+</u> 50	14 <u>+</u> 2
9860HQ-55 / 5700	1100	100 : 24	3	55	45 <u>+</u> 10	300 <u>+</u> 50	18 <u>+</u> 2
7003 / 5700	1200	100 : 30	15-30	65-75	75 <u>+</u> 10	250 <u>+</u> 50	30 <u>+</u> 5
650 / HE16	1200	100 :17-30	25-50	25-75	12 - 40	160 - 30	3 – 5



#### **High Density Spray**

#### H.D. SPRAY: CHARACTERISTICS

- Two Components:
  - Polyol A + Isocyanate B
- These Systems are designed for the projection of high density foams for decoration, substrate protection, etc.
- Densities between 100 1000 kg/m3.
- Excellent adhesion to all substrates
- These systems must be applicated with a polyurethane projection machine







### High Density Spray H.D. SPRAY: MAIN REFERENCES

POURING SYSTEM (Polyol / Isocyanate)	FREE DENSITY (Kg/m3)	MIX RATIO Pol : Iso (Weight)	WORK TIME (s)	APPLICATIONS
S 1003 / H	80	100 : 100	3	The main applications are for decoration, finished pieces in high-density Insulation
S 2003 / H	160	100 : 100	3	The main applications are for decoration, finished pieces in high-density Insulation
9452 / H	240-280	100 :1 00	3-5	The main applications are for decoration, finished pieces
S 4003 / H	300	100 : 100	4	The main applications are for decoration, finished pieces
S 004 / H	1000	100 : 100	2-4	The main applications are an industrial and construction
URELAST F 75	1000	100 : 100	3-5	The main applications are an industrial and construction, mostly for coatings



#### **Specialities**

#### OTHER PRODUCTS: CHARACTERISTICS

- Two Components:
  - Polyol A + Isocyanate B
- These Systems are designed for the production of different density pieces, depending the applications
- Moulded pieces with high hardness, excellent adhesion or good physical and mechanical properties depending the application
- Densities between 50- 1000 kg/m3
- Work Times: 6 seconds until 50 minutes depending on the system families











## Specialities OTHER PRODUCTS: MAIN REFERENCES

POURING SYSTEM (Polyol / Isocyanate)	FREE DENSITY (Kg/m3)	MIX RATIO Pol : Iso (Weight)	WORK TIME	APPLICATIONS
9774 / H30	24	100 : 110	25 s	Suitable for the manufacture of floral foams
9576 / H30	20-23	100 : 100	14 s	Suitable for the manufacture of floral foams
9406 / H30	32	100 : 130	35 s	Suitable for making floral foam block
9907 / 1517-B	45	100 : 300	27	Surf Boards
9290 / H30	50	100 : 140	6	Sutters
9669-X-85 / NH-10	85	100 : 110	19 s	Window Profiles
9914-X-160 / P-3010	160	100 : 40	15 s	Suitable for the manufacture of templates, shoe inserts, etc
9163 / HT16	900	100 : 85	140 s	Suitable for the manufcture of mannequins, spoilers, etc
RIM 9917D3 / 5700	1000	100 : 100	30 s	Automotive industry: Suitable for the production of pieces with good resistence to impact.
SK 11, 12, 13 / H25C	1000	100 : 23,20,14	60-90 min	Adhesives: Excellent adhesion to various substrates (plstics, wood, etc)